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James Green's Book 1765

James Green

E. from
Lambert, Claude François

TRAVELS,

THROUGH

ASIA, AFRICA, and AMERICA.

CONTAINING

A Curious account of the Manners, Cuſtoms, Uſages, different Languages, Government, Ceremonies, Religion, Hiſtory, Commerce, Arts, and Sciences, &c.

Of thoſe Several Nations.

By EDWARD HOWARD Eſq;

VOL. I.

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APPROVED

THE PREFACE.

AN inquiry into the manners, laws, and religious ceremonies of diſtant nations, has always been eſteemed, not only an entertaining, but a very uſeful ſtudy; and is by ſome preferred even to civil hiſtory, as it partakes of it in ſome meaſure, and yet has a variety of matter never to be found in that kind of writing.

The following obſervations are ſo curious in themſelves, and tho' related in a ſimple and plain manner, yet carry with them that evidence, which always accompanies a faithful writer, and one who is entirely maſter of his ſubject.

Our author indeed had an advantage of which few, or none of the moſt eminent of his predeceſſors could avail themſelves; and what Sir John Chardin laments the want of, in his preface to his travels, I mean a knowledge of the learned language of China, which is, as it were the key, not only to their particular opinions, but alſo to acquire a knowledge of the compoſition of their moſt beautiful productions, which our author has abundantly demonſtrated in his chapter on the origin of porcelain, wherein he gives a more minute detail of the matter and manner of preparing it, compoſition of the varniſh, different ſpecies, manner of gilding, ſtructure of the furnaces, the caſes in which it is baked, and in what the ancient differs from the modern, than any author who has gone before him; and which he draws not only from his own obſervations, but from an accurate examination of what Chineſe writers have ſaid on that curious ſubject.

Thro' the courſe of the work, he reconciles the ſeeming contradictory accounts

counts of the moſt eminent natural hiſtorians, as Varro, Columella, Pliny; and by his alluſions to the ancient poets, ſhews that he is as eminent in the learned languages of Europe, as in that of the Brachmans.

To enumerate all the beauties, and peculiar excellencies of this work, would ſurpaſs my intended brevity; and therefore I ſhall content myſelf with ſaying, that he has been ſo happy as to enquire into things hitherto unattempted, and conſequently is ſure of the merit of an original, ſhould he even have failed in the elegance and beauty of his deſcriptions.

But this is not all, ſince he alſo diſcovers ſome myſteries of the laſt importance, in the manufacture of ſilks and ſtuffs of various kinds, in dying, and the art of preſerving colours; in the method of painting and japaning all ſorts of utenſils and furniture, whether of wood, braſs, copper, &c.

But in no reſpect can our author be accounted more valuable, than in his juſt and lively deſcriptions of the arbitrary

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and tyrannical power of the ſeveral princes he mentions, by which means, every honeſt Engliſhman muſt, by a compariſon of his own happineſs, with the ſtate of ſlavery in which the Tartars and Chineſe are involved, rejoice that he was born in England.

CURIOUS

CURIOUS

OBSERVATIONS

ON THE

Manners, Cuſtoms, &c.

Of the ſeveral NATIONS of

Aſia, *Africa*, and *America*.

CHAP. I.

Of the fiſhing for the xanxus and pearls, and of the trade which the Dutch *carry on with them.*

IT is preciſely at cape Comarin †, that the coaſt ſo famous for the pearl fiſhery begins. It forms a kind of bay, which extends upwards of forty leagues, from cape Comarin, to the point of Romanacor, where the iſland of Ceylan is almoſt united to the main-land by a chain of rocks, which ſome Europeans call Adam's bridge.

† In the occidental Peninſula of the *Indies*.

The natives of the place ſay, that this bridge was built by the apes of former times. They are fooliſhly perſuaded, that theſe animals being more brave and induſtrious than the modern apes, made a paſſage from the main-land into the iſland of Ceylan, that they rendered themſelves maſters of this iſland, and reſcued the wife of one of their gods, who had been carried off. It is certain, that in this place, the ſea at her greateſt height is not above four or five feet deep, ſo that only ſloops or flat veſſels can paſs between the intervals of theſe rocks. The whole coaſt of the fiſhery is inacceſſible to European veſſels, on account of the terrible raging of the ſea, and ſhips can only paſs the winter at Tutucurin, that harbour being covered by two iſlands, which are its greateſt ſecurity.

Since the power of the Dutch has decayed in the Indies, we only find on the coaſt of the fiſhery miſerable and wretched towns, the principal of which are Tala, Manapar, Alandaley, and Pendicael. We muſt however except Tutucurin, which contains fifty thouſand inhabitants, ſome of whom are Chriſtians, and ſome Pagans.

To perſons at ſea Tutucurin appears a very beautiful city. We ſee pretty high buildings on the two iſlands which cover it. A ſmall fortreſs which the Dutch built ſome years ago to defend themſelves from the attacks of the Pagans who came from the main-land, and ſeveral large magazines built on the brink of the ſea, make a very grand and beautiful appearance: but as ſoon as we come on ſhore, all this beauty diſappears, and we find only a homely village almoſt intirely built with turf. The Dutch draw conſiderable revenues from Tutucurin, tho' they are not abſolute maſters of it. The whole coaſt of the fiſhery belongs partly to the king of Madura, and partly to the prince of Marava.

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With reſpect to the commerce of the Dutch on this coaſt; beſides the ſtuffs brought to them from Madura, which they exchange for the leather of Japan, and the ſpiceries of the Moluccas, they draw a conſiderable profit from two kinds of fiſheries, that of pearls and of xanxuſes.

The xanxuſes are large ſhells reſembling thoſe with which we generally paint Tritons. 'Tis incredible how jealous the Dutch are of this trade; it would coſt an Indian his life who ſhould venture to ſell a xanxus to any but the Dutch company. The members of this company buy them at a very low price, and ſend them to Bengal, where they ſell them very dear. They ſaw theſe ſhells according to their breadth; as they are round and hollow, when they are ſaw'd they make bracelets of them, which have as much luſtre as the fineſt ivory; thoſe which are catch'd on this coaſt in large quantities, have all their volutes from right to left, and if there ſhould be one found whoſe volutes were from left to right, the natives would account it a treaſure worth a million of money, becauſe they imagine, that it was in a xanxus of this kind that one of their kings concealed himſelf, to avoid the fury of his enemies, who purſued him by ſea.

The fiſhery of pearls alſo enriches the Dutch company in another manner. The pearls are not fiſhed for on the company's account, but they permit every inhabitant of the country, whether Pagan, Mahometan, or Chriſtian, to have as many boats for that purpoſe as they think proper; and every boat pays to them ſixty crowns, and ſometimes more. This tax raiſes a conſiderable ſum, ſince we ſometimes ſee ſix or ſeven hundred boats employed in this fiſhery.

The company does not permit every one to go in queſt of his pearls where he pleaſes, but marks

out a particular place for that purpoſe. Formerly the Dutch in the month of January appointed the place and the time for the fiſhery for that year, without making a previous tryal of it; but as it often happened that the ſeaſon or the place marked were not favourable, and as oyſters were wanting, which proved a conſiderable prejudice to thoſe who had made great preparations, they have now changed this cuſtom, and obſerve the following method.

In the beginning of the year, the company ſend ten or twelve boats to the place where they intend the fiſhery ſhould be. Theſe boats ſeparate into different parts; each of the divers catches a thouſand oyſters, which they bring aſhore; they open each thouſand ſeparately, and lay the pearls they take from it by themſelves. If the value of thoſe found in a thouſand amounts to a crown or more, it is a ſign that the fiſhery will be very rich and copious in that place: but if the pearls they take from a thouſand are only worth half a crown, there is no fiſhery that year, becauſe the profits would not defray the expences.

When the tryal has ſucceeded, and it is declared that there will be a fiſhery; at the appointed time there appears on the coaſt from all quarters a prodigious number of boats and people, with merchandize of all kinds. The Dutch commiſſaries come from Colombo, the capital of the iſland of Ceylan, to preſide over the fiſhery. The day it begins it is opened early in the morning by the diſcharge of a cannon. Upon this all the boats ſet out, preceded by two large Dutch ſloops, which anchor one upon the right, and the other on the left, in order to mark the place for the fiſhery. Then the divers of each boat plunge three, four, or five fathoms deep. Each boat has ſeveral divers, who go into the water by turns; as ſoon as one returns another plunges. They are tied to a rope, whoſe end

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is ſo fixed to the ſtern of the boat, that the ſailors can by means of a pully eaſily ſlacken or draw it, according as occaſion requires. The diver has a large ſtone tied to his feet, to make him ſink the ſooner, and a bag about his waiſt to hold the oyſters. As ſoon as he is at the bottom he quickly gathers all within his reach, and puts them into his bag. When he finds more than he can carry off, he lays them in a heap, and returning to take breath, he either dives again or ſends one of his companions to bring them up. In order to return to the air, he has nothing to do but ſtrongly to pull a ſmall rope, different from that which is fixed to his body. A ſailor who is in the boat and holds the other end of the rope, forthwith gives the ſignal to the others, who immediately draw the diver up, who to come up the more ſpeedily, looſes if he can, the ſtone which was tied to his feet. The boats are not at ſo great a diſtance, but that the divers frequently beat one another under water, for having taken away the heaps of oyſters they had gathered.

One of the divers perceiving that his companion had robbed him ſeveral times ſucceſſively of what he had been at great pains to gather, judged it expedient to put a ſtop to it for the future. He pardoned him the firſt and ſecond time, but ſeeing that he continued to pillage him, he let his neighbour dive firſt, and following him immediately with a knife in his hand, he murder'd him under water, which was not perceived till the body was drawn up without life and motion. This is not the only thing to be dreaded in this fiſhery; for there are in thoſe ſeas ſharks ſo ſtrong and large, that they often carry off and devour the diver and his oyſters.

As for the oil which the divers put into their mouths, or the glaſs bell in which they include themſelves, to enable them to dive, theſe are falſhoods advanced by perſons who have been ill informed. As the people of that coaſt are from their infancy accuſtomed to diving, and to retain their breath, they become dexterous at it, and are paid according to their dexterity: but notwithſtanding this, the buſineſs is ſo fatiguing, that they can only plunge ſeven or eight times a day. Some of them are ſo much tranſported with ardour to gather more oyſters than their neighbours, that they loſe reſpiration and preſence of mind ſo much, that not thinking to make the ſignal, they are ſoon ſuffocated, if the ſailors in the boat do not draw them up, when they ſtay too long. This exerciſe is continued till noon, when all the boats come to the ſhore.

When the boats land, the maſter orders all the oyſters belonging to him to be carried into a kind of yard or area, where he leaves them two or three days, that they may open, and eaſily ſuffer the pearls to be extracted. When they are taken out and well waſh'd, they have five or ſix ſmall copper baſons pierc'd like a ſieve, which go into each other in ſuch a manner that there remains ſome ſpace between the uppermoſt and the undermoſt. The holes of each baſon are of different diameters. Theſe of the ſecond are leſs than thoſe of the firſt, and thoſe of the third leſs than thoſe of the ſecond, and ſo of the others. They throw the pearls, both great and ſmall, after they are well waſhed, into the firſt baſon, and ſuch of them as do not paſs thro' this are thought to be of the firſt order. Thoſe which remain in the ſecond baſon are of the ſecond order, and ſo on to the laſt, which not being pierced receives the

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ſeeds of the pearls. Theſe different orders of pearls generally determine their price, unleſs the figure or water augment or diminiſh their value. The Dutch always reſerve to themſelves the right of purchaſing the largeſt; yet if the perſon to whom they belong, will not ſell them for the price they offer, they do him no violence, and he may diſpoſe of them to whom he pleaſes. All the pearls caught the firſt day belong either to the king of Madura or to the prince of Marava, according to the ſituation of the coaſt where the fiſhery is carried on. The Dutch have not the fiſhing of the ſecond day, as has been reported by ſome; but they have a ſufficient number of other ways to enrich themſelves by the pearl trade. The ſureſt and ſhorteſt method is to have ready money; for if people pay upon the ſpot, they have great bargains upon thoſe coaſts.

But if the pearl fiſhery produces great riches, it alſo brings on terrible diſeaſes, either on account of the prodigious confluence of people from all parts, who live ſo poorly that many of them eat only oyſters, which are of a difficult digeſtion, and a malignant quality; or laſtly, on account of the infection of the air; for the oyſters being expoſed to the heat of the ſun, are corrupted in a few days, and exhale a ſtench, which alone may produce contagious diſtempers.

Very beautiful pearls are alſo found in Colo and Mindano, which are two of the Philippine iſlands. The divers, before they plunge, have a cuſtom of rubbing their eyes with the blood of a white cock. But it is in the Perſian gulph, in the iſle of Baharens, and on the coaſt of Califa in Arabia Felix, that the moſt conſiderable pearl fiſhery is carried on. Here the fiſhing

happens twice a year, the firſt in the month of March and April, and the ſecond in thoſe of Auguſt and September. The Banians and Moors generally purchaſe the greateſt part of theſe pearls, which they buy cheap and ſell very dear in Perſia.

The coaſt of California, particularly from the cape of St. Lucar to the White cape, the coaſt of Peru, and that of Panama, alſo produce large pearls. But theſe have not the water of the oriental pearls, and are of a blackiſh and leaden colour, which proceeds from the bad bottom in which they are formed, and which is ſometimes only one or two fathoms deep.

As to the opinion of the ancients, that pearls were formed of the dew which falls from heaven, and that there was only one pearl in every oyſter, nothing is more oppoſite to truth, ſince we ſee that they are immoveable in a bottom often ten fathoms deep, where the dew cannot penetrate; and ſince we ſometimes find ſeven or eight pearls of different ſizes in one oyſter. They are ingendered, if I may ſo ſpeak, in the ſame manner with the eggs in a hen, the largeſt advancing always towards the orifice, while the the ſmalleſt remain at the bottom, in order to be compleatly formed. Thus the largeſt pearl comes firſt; and the ſmaller ones remain at the bottom of the ſhell, till they arrive at their natural bulk. All oyſters however do not include pearls, ſince it is certain that a great many contain none at all.

CHAP.

CHAP. II.

Of the knowledge which the Indians have had of the true religion.

BY reading the ancient books of the Indians we may eaſily be convinced, that they drew their religion from the books of Moſes and the Prophets. In a word, all the fables of which their books are full, do not ſo far cloud and darken the truth, but that it may be known. Beſides, the religion of the Hebrews, of which the Indians owe their knowledge partly to their trade with the Jews and Egyptians, we may diſcover among them very remarkable traces of the Chriſtian religion, which was preached to them by the apoſtle Thomas, by Pantænus, and ſeveral other great men in the primitive ages of the church.

It is certain that the commonalty of the Indians by no means fall into the abſurdities of atheiſm. They have pretty juſt ideas of the Deity, tho' altered and corrupted by the worſhip of idols. They acknowledge an infinitely perfect God, who exiſts from all eternity, and is poſſeſſed of the moſt excellent attributes: ſo far, nothing is more beautiful and conformable to the ſentiments of Chriſtians concerning the Deity; but idolatry has ſuperadded the following extravagancies.

Moſt of the Indians affirm, that the great number of gods whom they now adore are only ſubordinate deities, ſubjected to the ſovereign Being, who is equally lord over gods and men. This great God, ſay they, is infinitely exalted above all beings; and this infinite diſtance hinders him from having any commerce with weak creatures. What proportion, continue they, is there between an infinitely

finitely perfect being, and beings created full of imperfections and weakneſſes. 'Tis for this reaſon, according to them, that Parabaravaſtou, that is, the ſupreme God, called Bruma, Vichnou, and Routren, to the firſt he has given the power of creating, to the ſecond the power of preſerving, and to the third the power of deſtroying.

But theſe gods adored by the Indians, are in the opinion of their learned men, the ſons of a woman whom they call Parrachatti; that is, the ſupreme Power. If we reduce this fable to what it was in its origin, we ſhall eaſily diſcover the truth, tho' darkened by the ridiculous ideas which the ſpirit of error has added to it.

The firſt Indians would only ſay, that all things which happened in the world, either by creation, which they aſcribe to Bruma; by preſervation, which is the office of Vichnou; or by the different changes and revolutions, which are the work of Routren, proceed ſolely from the abſolute power of Parabaravaſtou, or the ſupreme God. They afterwards made a woman of their Parrachatti, and have aſcribed to her three children, which are only the principal effects of omnipotence. In a word, Chatti in the Indian language ſignifies power, and Para ſupreme or abſolute.

This idea which the Indians have of a Being infinitely ſuperior to the other deities, at leaſt denotes that their anceſtors in reality adored only one God, and that polytheiſm was only introduced among them, in the manner in which it ſpread thro' all the idolatrous countries.

This firſt knowledge of a God, does not indeed evidently prove the commerce of the Indians with the Egyptians or the Jews: for it is a fundamental truth engraved on the minds of all men, and is never altered, except by the irregularity and corruption of the heart.

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The Indians explain the reſemblance of man with God in this manner: "Imagine to yourſelf, ſays "one of their moſt celebrated authors, a million "of large veſſels full of water, on which the ſun "diffuſes his rays. This fine ſtar, tho' one, is "multiplied and repreſented in a moment in each "of theſe veſſels. We every where ſee an exact "reſemblance of the ſun. Our bodies are theſe "veſſels full of water, the ſun is the figure of the "ſupreme Being, and the image of the ſun paint-"ed in each of theſe veſſels, naturally enough re-"preſents our ſouls created after the image of God."

It was Bruma, ſay the Indians, who created the firſt man, and formed him of the duſt of the earth, as yet quite new and recent. He had indeed ſome difficulty to finiſh his work, neither did his meaſures ſucceed till he made the third attempt. Fable has added this laſt circumſtance to truth, and it is not ſurpriſing that a god of the ſecond order ſhould require an apprenticeſhip to create man in the juſt and beautiful proportion of all his parts. This is not all; Bruma the new creator had no ſooner formed his creature, than he was ſo much the more charmed, as it had coſt him more pains to perfect it. The next thing to be done is to place this creature in a habitation ſuitable to its worth and dignity.

The ſcripture is very magnificent in the deſcription it gives us of the terreſtrial paradiſe. The Indians have been willing to imitate it in the repreſentations they give us of their Chorcam, which according to them is a garden of pleaſures, where all ſpecies of fruits are found in great abundance. We there ſee a tree, whoſe fruit, according to them, would communicate immortality, if it were lawful to eat of it. It would have been very ſtrange, if people who had never heard of the terreſtrial paradiſe,

diſe, ſhould without knowing it, give ſo ſimilar a deſcription.

What is marvellous in the ſyſtem of the Indian doctors is, that the inferior gods, who from the creation of the world are multiplied to an infinite number, had not, or at leaſt were not ſure of having the privilege of immortality, which however they muſt have wiſh'd for. With reſpect to this ſubject, the Indians relate the following ſtory, which however fabulous, has certainly no other origin than the doctrine of the Hebrews, and perhaps that of the Chriſtians.

The gods, ſay the Indians, try'd all ways to arrive at immortality. After trying various ways they thought proper to have recourſe to the tree of life, which was in the Chorcam. This means ſucceeded, and by eating now and then of the fruit of this tree, they preſerve to themſelves a treaſure, which it is ſo much their intereſt not to loſe. A famous ſerpent called Chiven, perceived that the tree of life had been diſcovered by the gods of the ſecond order. As probably the care of this tree had been entruſted to the ſerpent, he conceived ſo great a rage at the diſcovery, that he forthwith diffus'd ſo large a quantity of poiſon, that all the earth was infected by it, and no man eſcaped. But the god Chiven took pity upon human nature, appeared in the form of man, and cheerfully ſwallowed all the poiſon with which the malicious ſerpent had infected the whole world.

In the following fable, we may eaſily trace the hiſtory of the deluge. The god Routren, who is the great deſtroyer of created beings, one day formed a reſolution to drown all men, with whom he pretended to have reaſons to be diſſatisfied. His deſign could not be ſo ſecret, but that it was foreſeen by Vichnou, the preſerver of creatures. His power did not extend ſo far as to ſuſpend the execution

cution of Routren's project; but his quality of preſerver of the creatures gave him a right to hinder, if poſſible, the moſt pernicious effects of it, which he did in the following manner.

He one day appeared to Sattiavarti his great confident, and told him in ſecret, that there would very ſoon be an univerſal deluge, that the earth would be covered with water; and that by this means Routren intended no leſs than the total deſtruction of men and animals. He aſſured him at the ſame time, that he had nothing to dread, and that in ſpite of Routren he would take care to preſerve and protect him, in order to repeople the earth.

His deſign was to make a wonderful bark appear, the moment when Routren leaſt expected it, and to include in it ſufficient proviſion for about eight hundred and forty millions of ſouls and ſeeds of beings. It was alſo neceſſary that at the time the deluge began, Sattiavarti ſhould be on the ſummit of a very high mountain, which he carefully pointed out to him. Some time after Sattiavarti, as had been predicted to him, perceived an infinite number of clouds aſſembled. He with tranquillity ſaw the ſtorm formed over the heads of guilty mortals. The moſt terrible rain that ever was ſeen fell from the heavens. The rivers were enlarged ſo as to cover the ſurface of the whole earth. The ſea overflowed her banks, and mixing with the rivers, ſoon covered the higheſt mountains, ſo that trees, animals, men, cities, and kingdoms were overwhelmed. All animated beings periſhed, and were deſtroyed.

In the mean time Sattiavarti, with ſome of his virtuous friends, had betaken themſelves to the appointed mountain. He there waited for the aſſiſtance the god had promiſed him; and for ſome moments was not free from apprehenſions: The waters,

ters, which always aſſumed new force, and gradually approached to him, now and then gave him terrible alarms: but at the inſtant when he thought to be loſt, he ſaw the bark appear which was to ſave him. He forthwith went into it with the virtuous perſons who accompanied him. This veſſel contained eight hundred and forty millions of ſouls, and the ſeeds of beings.

The difficulty was to manage the bark, and ſupport her againſt the impetuoſity of the billows, which were in a furious agitation. The god Vichnou took care of this; for he forthwith became a fiſh, and made uſe of his tail as a helm to direct the ſhip. The god-fiſh was ſo ſkilful a pilot, that Sattiavarti remained in his aſylum in great repoſe, till the waters retired from the face of the earth.

In this recital mix'd with fables, and the moſt whimſical conceits, who does not perceive what the ſcripture teaches us concerning the deluge, the ark, and the preſervation of Noah, and his family.

The Indians have not ſtopt here, ſince after deſcribing Noah under the name of Sattiavarti, they have applied to Brama the moſt ſingular adventures of the hiſtory of Abraham. The following incidents ſeem to confirm this.

The conformity of the names ſeems at firſt to ſupport my conjectures; for there is but little difference between Brama and Abraham. This Brama, whoſe name is ſo like to that of Abraham, was married to a woman whom all the Indians call Saraſvadi. The two laſt ſyllables of this word are, in the Indian language, an honourable appellation; thus Vadi is equivalent to our word Madam. This termination is found in ſeveral names of diſtinguiſhed women; as for example, in that of Parvadi the wife of Routren. It is therefore evident, that the two firſt ſyllables of the words Saraſvadi, which are properly the whole name of Brama's wife,

wife, are reduced to Sara, which is that of Abraham's wife.

There is, however, ſomething ſtill more ſingular. Brama among the Indians, as Abraham among the Jews, was head or chief of many tribes, and the number of tribes is exactly alike. At Tiche-rapali, where is now the moſt famous temple in the Indies, they yearly celebrate a feſtival, in which there is a venerable old man with twelve children before him, who repreſent, ſay the Indians, the twelve chiefs of the principal tribes. 'Tis true, ſome of their doctors think, that in the ceremony this old man repreſents Vichnou: but this is not the opinion of the literati, nor of the people, who generally ſay that Brama is the chief of all the tribes.

The Indians honour the memory of one of their ſaints, who like the patriarch Abraham, thought it his duty to ſacrifice his ſon to one of the gods of the country. This god demanded this victim of him, but accepting of the will of the father, did not ſuffer him to proceed to the execution of his purpoſe; ſome of them, however, ſay, that the child was ſlain, but that the god raiſed him from the dead.

We find a very ſurprizing cuſtom in one of the Indian tribes, which is called the tribe of robbers; not that there is an intire tribe of robbers, nor that all who follow this trade are aſſembled into a particular body, and have a privilege to rob excluſive of all others: the meaning is only, that all the Indians of this tribe rob with great liberty; but unfortunately they are not the only perſons who ought to be diſtruſted.

Now, in this tribe of robbers they obſerve the ceremony of circumciſion: But it is not performed in infancy, but on perſons about twenty years of age; neither are all ſubject to it, ſince only the principal men of the tribe ſubmit to it. This cuſtom

tom is very ancient, and it is very difficult to diſcover whence it aroſe amidſt an intirely idolatrous people.

From the hiſtory of Noah and Abraham, let us proceed to that of Moſes.

Nothing ſeems more to reſemble Moſes than the Vichnou of the Indians transform'd into Chrichnen, which in the Indian language ſignifies black. This is to intimate that Chrichnen came from a country whoſe inhabitants are of this colour. The Indians add, that one of the neareſt relations of Chrichnen was in his infancy expos'd in a ſmall cradle, on a large river, where he was in great danger of being drown'd. He was taken up, and as he was a very beautiful child, he was brought to a great princeſs, who took the charge of his maintenance and education.

What could poſſibly induce them to apply this event to one of Chrichnen's relations rather than to himſelf? Of this we are ignorant. It was not Chrichnen then, but one of his relations, who was brought up at the court of a certain great princeſs. In this the compariſon with Moſes is defective; but what follows in ſome meaſure recompenſes this defect.

As ſoon as Chrichnen was born, he was alſo expoſed on a great river to ſcreen him from the wrath of the king, who waited for the moment of his birth, in order to kill him. The river out of reſpect divided itſelf, and would not diſturb ſo precious a treaſure. The infant was taken from this dangerous place, and brought up among ſhepherds. He afterwards married with the daughters of theſe ſhepherds, and for a long time kept their flocks. He ſoon diſtinguiſhed himſelf among his companions, who choſe him for their chief. He then performed wonderful things for the flocks and thoſe who kept them. He killed the king who had declared

clared a cruel war againſt them. He was purſued by his enemies, and as he was not in a condition to reſiſt, he retired to the ſea, which opened a road for him, and ſwallowed up thoſe who purſued him. By this means he eſcaped from the torments prepared for him.

Is it after this poſſible to doubt that the ancient Indians have known Moſes under the name of Vichnou, transformed into Chrichnen? But to a knowledge of this famous conductor of the people of God, they have joined that of ſeveral cuſtoms which he has deſcribed in his books, and ſeveral laws which he has publiſhed, and which were obſerved after his death.

Among theſe cuſtoms which the Indians only could have drawn from the Jews, and which are ſtill preſerved in their country, we may reckon the frequent bathings and purifications, the extreme horror of dead carcaſſes, by the touch of which they think themſelves polluted; the different order and diſtinction of the tribes, and the inviolable law which forbids them to marry out of their own tribes. But let us continue our parallel.

The Indians make a ſacrifice which they call Ikiam, which is the moſt celebrated of all thoſe made in the Indies: in it they ſacrifice a ſheep, and repeat a kind of prayer, in which with a loud voice they pronounce theſe words, "When ſhall "the ſaviour be born, when ſhall the redeemer "appear?"

Does not this ſacrifice of a ſheep ſeem to bear a near reſemblance to that of the paſchal lamb; for it is to be obſerved, that as the Jews were all obliged to eat their ſhare of the victim, ſo the Bramins, tho' they dare not eat fleſh, are nevertheleſs diſpenſed from their abſtinence at the ſacrifice of the Ikiam, and are obliged to eat of the ſheep

which they sacrifice, and distribute among the rest.

Many Indians adore the fire, and even their gods have offered victims to that element. There is a particular precept for the sacrifice of Oman, by which it is ordered that the fire should always be preserved, and never suffered to go out. He who assists at the Ikiam is every morning and evening to put wood upon the fire, in order to keep it in. This scrupulous care corresponds to the command given in the book of Leviticus, "*And "the fire upon the altar shall be burning in it, it "shall not be put out, and the priest shall put "wood on it every morning." The Indians have done something more in consideration of fire; for they precipitate themselves into the midst of the flames.

They have also a very high idea of serpents, since they believe that these animals have something divine in them, and that the sight of them is lucky. Thus many of them adore serpents, and pay them the most profound homage: but so little gratitude have these animals, that they cruelly bite their adorers. If the brazen serpent which Moses shewed the people of God, and which cur'd by being seen, had been as cruel as the live serpents of the Indians, I fancy the Jews would never have been tempted to adore it.

We must not forget the charity of the Indians to their slaves, whom they treat almost like their own children. They take care to bring them well up, and provide liberally for them. They marry them, and almost always give them their liberty. Does it not seem that the precepts in the book of Leviticus were by Moses addressed to the Indians, as well as to the Israelites?

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* Chap. vi. ver. 12.

What appearance is there that the Indians had not formerly ſome acquaintance with the law of Moſes? What they ſay concerning their law, and of Brama their legiſlator, ſeems evidently to deſtroy all doubts of this kind.

Brama has given a law to man. This Vedam, or book of the law, the Indians look upon as infallible. It is, according to them, the pure word of God, declared by Abadam, that is, by him who cannot be deceived, and who is eſſentially truth. The Vedam, or law of the Indians, is divided into four parts. But in the opinion of ſeveral learned Indians, there was anciently a fifth, which has periſhed by the injury of time, and which it has been impoſſible to recover.

The Indians have an inconceivable eſteem for the law which they have received from their Brama. The profound reſpect with which they hear it read, the choice of proper perſons for this purpoſe, the preparations for it, and a hundred ſimilar circumſtances, are perfectly conformable to what we know of the Jews with reſpect to the holy law, and Moſes who promulged it to them.

But this reſpect of the Indians for their law proceeds ſo far, that they want to keep it an impenetrable myſtery from Chriſtians: but yet we know the following particulars concerning it. The firſt part of the Vedam, which they call Irroucouredam, treats of the firſt cauſe, and the manner in which the world was created. They ſay that in the beginning there was nothing but God and water; and that God moved upon the water. Does not this, in ſome meaſure, reſemble the firſt chapter of Geneſis?

In the third book, which they call Samavedam, there are a great many moral precepts, which have a great analogy with the moral precepts diſpers'd thro' Geneſis.

The fourth book, which they call Adavanavedam, contains the different ſacrifices to be offered, the qualities requiſite to the victims, the manner of building the temples, and the different feſtivals to be celebrated, all which are ſo many plans taken from the books of Leviticus and Deuteronomy.

To render the parallel perfect. As it was upon the famous mount Sinai that Moſes received the law, ſo it was upon the celebrated mountain of Mahamerou, that Brama was found with the Vedam of the Indians. This mountain of the Indies, is the ſame with that which the Greeks have called Meros, where they ſay Bacchus was born, and where the ſeats of the gods were. The Indians to this day affirm, that in this mountain the Chorchams or different paradiſes are ſituated.

We have ſeen what the Indians think of Moſes and the law. Let us hear what they ſay of Mary the ſiſter of that great prophet. The ſcripture tells us of her, that after the miraculous paſſage thro' the Red-Sea, ſhe aſſembled the Iſraelitiſh women, provided muſical inſtruments, and with her companions began to dance, and ſing the praiſes of the moſt high. A paſſage very like this, is by the Indians told of their famous Lakeoumi. This woman was, as well as the ſiſter of Moſes, delivered out of the ſea, by a kind of miracle, and had no ſooner eſcaped than ſhe made a magnificent entertainment, in which all the gods and goddeſſes danced to the ſound of inſtruments.

The Indians alſo tell another ſtory of Arichandiren. This was a very ancient king of the Indies, and excepting the name, and ſome circumſtances, is the Job of the ſcriptures.

The gods one day met in their Chorcam, or paradiſe of pleaſures. Devendiren the god of glory preſided in their illuſtrious aſſembly. A croud of

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gods and goddeſſes were preſent. The famous ſaints had alſo their place there, eſpecially the ſeven principal hermits.

After ſome indifferent diſcourſe, the queſtion was propoſed, Whether among men there was a perfect prince. Almoſt all of them maintained that there was not one who was not ſubject to very great vices; Vichouvamoutren put himſelf at the head of this party: but the famous Vachichten was of a contrary opinion, and maintained that king Arichandiren his diſciple was a perfect prince.

Vichouvamoutren being of an imperious temper, and impatient of contradiction, flew into a violent paſſion, and aſſured the gods that he would ſhew them the defects of that prince, if they would abandon him to his management.

The challenge was accepted by Vachichten, and it was agreed, that he who ſhould be conquered ſhould yield to the other, all the merit he had acquired by a long penance. Poor king Arichandiren was the victim of this diſpute. Vichouvamoutren put him to all kinds of tryals. He reduced him to extreme poverty, and ſtript him of his kingdom. He kill'd his only ſon, and even carried off his wife Chandirandi.

Notwithſtanding ſo many calamities, the prince ſtill perſiſted in the practice of virtue, with an evenneſs of ſoul, of which the gods who tried him ſo ſeverely, would not have been capable; but they rewarded him with great magnificence for it: they embraced him one after another; and the very goddeſſes paid their compliments to him. They reſtored his wife, and raiſed his ſon from the dead. Thus Vichouvamoutren, according to agreement, yielded all his merit to Vachichten, who made a preſent of it to king Arichandiren; and he who was conquered went, with regret, to begin a long

penance, to get, if possible, a fresh stock of virtue.

The Indians tell another story which comes very near to that of Sampson. They say that their god Ramen one day attempted to conquer Ceylan, and god as he was, could only think of the following stratagem to carry on his design. He levied an army of apes, and for a general gave them a distinguished ape whom they called Anouman. He ordered the general's tail to be covered with several pieces of stuff, on which large quantities of oil were poured. To this stuff he set fire, and the ape running thro' the corn, the towns and the villages, burnt every thing that came in his way, so that almost the whole island was reduced to ashes. After such an expedition, the conquest of it could not be difficult; and it was not necessary to be a god of great power in order to accomplish his ends.

Such is the knowledge the Indians have had of the religion of the Hebrews: and it is no less true, that they have had a knowledge of the Christian religion, from the primitive times of the church. It cannot be denied but that they still preserve a confused idea of the adorable Trinity: their three principal gods are Bruma, Vichnou, and Routren. Most of the Indians indeed affirm, that these are three different and really separate deities. But many Maniqueuls or spiritual men, assert that these three gods, apparently separate, are in reality but one god, who is called Bruma, when he creates and exerts his omnipotence; Vichnou, when he preserves the beings created, and dispenses proofs of his bounty; and Routren, when he destroys cities, chastises the guilty, and makes the effects of his just wrath to be felt. We must, say some Indian doctors, represent to ourselves God and his three names, which correspond to his three principal attributes, nearly under

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the idea of thoſe triangular pyramids, erected before the entries of ſome churches.

All the Indians grant that God has been ſeveral times incarnated; and almoſt the whole race aſcribe theſe incarnations to Vichnou, the ſecond god in their trinity; and this god, according to them, was never incarnated, except in quality of ſaviour and deliverer of men.

With reſpect to ſacraments, the Indians ſay, that bathings in certain rivers intirely efface ſins, and that this myſterious water not only waſhes the body, but alſo purifies the ſoul in an admirable manner. The remains of the ſacrifices, and the rice diſtributed to be eaten in the temples, are called by the Indians Parajadam, which in our language ſignifies Divine Grace, the meaning of the Greek word Euchariſt.

It is a kind of maxim among the Indians, that he who ſhall confeſs his ſin, ſhall receive a pardon. They celebrate a feſtival every year, during which they go to confeſs upon the borders of a river, that their ſins may be entirely effaced. In the famous ſacrifice called Ikiam, the wife of him who preſides is obliged to confeſs, and deſcend to a detail of her moſt humbling vices, and even to declare the number of her ſins. The Indians with reſpect to this ſubject relate the following fable.

When Chrichnen was in the world, the famous Draupadi was married to five celebrated brothers, all kings of Madura. One of theſe princes one day ſhot an arrow at a tree, and ſtruck an admirable fruit from it. The tree belonged to a celebrated ſaint, and had this quality, that every month it bore fruit, which gave ſo much ſtrength to him who eat it, that for the whole of the month that ſingle repaſt was ſufficient for him: but as in theſe remote ages, people were more afraid of the malediction of the ſaints than of the gods, the five

brothers were afraid leſt the hermit ſhould curſe them; for which reaſons they prayed to Chrichnen to aſſiſt them in ſo delicate an affair. The god Vichnou transformed into Chrichnen told them, as well as Draupadi, who was preſent, that he ſaw no other means of repairing ſo great an evil, than the making an entire confeſſion of all the ſins of their lives; that the tree whoſe fruit had fallen was ſix cubits high; that in proportion as each of them confeſſed, the fruit would be elevated in the air to the height of a cubit; and that at the end of the laſt confeſſion, it would be fixed to the tree as it was before.

The remedy was bitter, but it was neceſſary either to take it, or expoſe themſelves to the malediction of the ſaint. The five brothers conſented to declare all. The difficulty was to engage the woman to do the ſame. After it became neceſſary to ſpeak of her faults, ſhe felt only an inclination for ſecrecy and ſilence. However, by repreſenting to her the fatal effects of the malediction of the ſaint, they made her promiſe what they had a mind.

After this aſſurance, the eldeſt of the princes began this troubleſome ceremony, and made a very exact confeſſion of his whole life. In proportion as he ſpoke the fruit aſcended of itſelf, and was only elevated one cubit at the end of this firſt confeſſion. The four other princes followed the example of their eldeſt brother, by which means the ſame prodigy happened, that is, at the end of the fifth confeſſion, the fruit was only five cubits high.

Nothing was now wanting but one cubit; but the laſt effort was reſerved for Draupadi. After a great many ſtruggles ſhe began her confeſſion, and the fruit was gradually elevated. She ſaid ſhe had done, and yet the fruit wanted half a cubit

to rejoin the tree whence it had fallen. It was evident ſhe had forgot, or rather concealed ſomething. The five brothers begged her with tears in their eyes, not to ruin herſelf thro' a culpable ſhame, and not to involve them in her misfortune. Their prayers had no effect; but Chrichnen coming to their aſſiſtance, ſhe declared an intentional ſin which ſhe wanted to keep ſecret. Hardly had ſhe ſpoke till the fruit began its marvellous courſe, and of its own accord fix'd itſelf on the branch where it hung before.

CHAP. III.

Of the ſingular form of the Chineſe veſſels; a deſcription of the iſlands of Ponghou, and of the iſland of Formoſa; the manners and cuſtoms of the inhabitants of theſe iſlands. The conqueſt of the iſland of Formoſa from the Dutch by the Chineſe.

THE largeſt Chineſe veſſels of war are from one hundred and fifty to three hundred tons burden. They are, properly ſpeaking, but flat boats with two maſts. They do not exceed eighty or ninety feet in length, and ſixty or ſeventy in breadth. The maſts, ſails, and rigging of theſe veſſels are ruder than their built; for their maſts are made of trees no otherwiſe faſhioned, than by lopping off their branches.

Theſe veſſels have neither mizen-maſt, bowſprit nor top-gallant-maſt. All their maſts are the main-maſt and the fore-maſt, to which they ſometimes add a ſmall top-gallant-maſt, which is not of great uſe. The main-maſt is placed almoſt where

where we place ours, and the fore-maſt is on the fore-caſtle. The proportion of the one to the other is generally as two to three; and that of the main-maſt to the veſſel, is nearly ſo, being generally more than two thirds of the length of the veſſel.

Their ſails are made of mats of bamboo, or a kind of canes common in China, ſtrengthened every three feet by an horizontal rib of the ſame wood. At top and bottom are two pieces of wood; that above ſerves as a yard; that below made in form of a plank, more than a foot broad, and about ſix inches thick, retains the ſail, when they want to hoiſt or furl it. Theſe veſſels are by no means good ſailors; however they hold more wind than ours. This is owing to the ſtiffneſs of their ſails, which do not yield to the wind. But as the conſtruction of them is not advantageous, they loſe the advantage they have in this point over ours.

The Chineſe do not caulk their ſhips with pitch, as in Europe. Their caulking is made of a particular gum, and is ſo good that the veſſel is kept dry by a well or two in the hold. They have as yet no knowledge of the pump. Their anchors are not iron, as ours, but are made of a hard and weighty wood which they call iron-wood. They pretend that theſe anchors are much better than thoſe of iron, becauſe, ſay they, thoſe laſt are ſubject to bend, which never happens to thoſe of wood.

They have neither pilot nor maſter. The ſteerſmen conduct the ſhip, and give orders for the working. However, they are pretty good ſailors and good coaſting pilots; but very bad ones in the main-ſea. They ſteer by that point of the compaſs which leads directly to the place they are bound for, without minding the ſhocks the veſſel receives.

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This negligence, or rather ignorance, proceeds from their not making long voyages.

A Deſcription of the iſlands of Ponghou, and of the iſland of Formoſa.

THE iſlands of Ponghou form a ſmall archipelago of thirty-ſix barren iſlands, which are only inhabited by a Chineſe garriſon. As theſe iſlands conſiſt intirely of ſand and rock, the neceſſaries of life muſt be brought either from Hiamen or from Formoſa. When the Dutch were maſters of the bridge of Formoſa, they built a kind of fort at the end of the great iſland of Ponghou upon the harbour, in order to defend its entry. This harbour, tho' in an uncultivated and uninhabited country, is abſolutely neceſſary for the preſervation of Formoſa, which has no harbour that can admit veſſels which draw more than eight feet of water.

All the iſland of Formoſa is not under the government of the Chineſe. It is, as it were, divided into two parts, eaſt and weſt, by a ridge of high mountains. The eaſtern part, ſay the Chineſe, is only inhabited by barbarians. The country is mountainous, uncultivated, and ſavage.

The part of Formoſa which the Chineſe poſſeſs, certainly deſerves the name it bears. The air is there pure and always ſerene. The country is fertile in all kinds of grain, and watered by a great many rivulets deſcending from the mountains which divide it from the eaſtern part. The ſoil here produces abundance of corn, rice, &c. We here find moſt of the Indian fruits, ſuch as bananas, ananas, goyaves, papayas, cocos, &c. Here alſo we find peaches, apricots, figs, grapes, cheſnuts, pomgranets, and melons. Tobacco and ſugar

thrive very well. All the trees are ſo agreeably ranged, that when the rice is tranſplanted, the vaſt plain of the meridional part rather reſembles a beautiful garden than a ſimple field.

As this country has hitherto been only inhabited by a barbarous and uncivilized people, horſes, ſheep, and goats are very rare in it. But hens, ducks, and geeſe are found in great plenty. There are alſo a great many oxen, which are uſed inſtead of horſes, mules, and aſſes. They back them very ſoon, and they go as well and as faſt as the beſt horſes. They uſe bridle, ſaddle, and crupper, which are ſometimes of great value.

Stags and apes are here very common, but deer are very rare. If in this country there are bears, wild boars, lions, tygers, and leopards, as in China, they are only found in the mountains of the eaſtern part. Here there are very few birds, and the moſt common are pheaſants.

The Chineſe divide the territories they poſſeſs, in the iſland of Formoſa, into three ſubordinate governments, which depend on the capital. This capital, which is called Tai-ovan-fou may be compared with moſt of the beſt and moſt populous cities of China. We there find all that can be wiſhed for, partly by the natural produce of the iſland, ſuch as rice, ſugar, ſugar-candy, tobacco, ſalt, veniſon, fruits of all kinds, cotton, hemp, the bark of certain trees, and of a certain plant which pretty much reſembles a nettle, a great many medicinal herbs, moſt of which are unknown in Europe. Other commodities are imported, ſuch as ſtuffs from China and the Indies, ſilks, varniſhes, porcelains, and the different manufactures of Europe.

As Formoſa is a very important place, and as the Chineſe might excite great troubles in the empire, if they get poſſeſſion of it, the Tartars keep

in it a garriſon of ten thouſand men, commanded by two lieutenant-generals, two major-generals, and ſeveral ſubaltern officers, who are changed every three years, and oftener, if there is reaſon for it.

The ſtreets of the capital are very regular, and all covered ſeven or eight months of the year to defend the inhabitants from the heat of the ſun. They are only about thirty or forty feet broad, but very near a league long in ſome places. They are almoſt all full of merchants houſes, and ſhops adorned with ſilks, porcelains, varniſhes, and other merchandizes, admirably well arranged, in which the Chineſe excel. Theſe ſtreets appear like ſo many charming galleries. The houſes are covered with ſtraw, and moſt of them are only built of earth and bamboo, but the tents which cover the ſtreets, only permitting the ſhops to be ſeen, conceal the diſagreeable appearance of the houſes. The houſe which the Dutch built when they were maſters of it, is of conſiderable value. It is a large houſe three ſtories high, and defended by a rampart of four demi-baſtions. This houſe looks to the point, and could, in caſe of neceſſity, oppoſe the landing of an enemy.

Tai-ovan-fou has neither fortification nor walls; the Tartars do not place their ſtrength and courage in incloſures and ramparts. They love to fight on horſe-back in open fields. The harbour is pretty good, and defended from all winds, but the entry into it becomes daily more and more difficult. Formerly there was a poſſibility of entering it in two places; one where the largeſt veſſels anchor'd eaſily; and the other, whoſe bottom is a rock, is no more than nine or ten feet deep in the higheſt tides. The former paſſage is not at preſent navigable, and is daily fill'd up more

and

and more by the ſand which the ſea conveys to it.

The part of Formoſa which is ſubject to the Chineſe, is compoſed of two kinds of people; the Chineſe, and the natives of the country. The inhabitants of Formoſa, who are ſubjects to the Chineſe, are divided into forty-five villages, of which thirty-ſix lie toward the north, and nine toward the ſouth. The villages towards the north are pretty populous, and the houſes nearly reſemble thoſe of China. Thoſe towards the ſouth are cottages built of earth and bamboo, covered with ſtraw, and raiſed upon a bed three or four feet high. They are built in the form of a reverſed funnel, and are fifteen, twenty, thirty, or forty feet in diameter. In theſe hutts the inhabitants have neither chairs, ſtools, tables, beds, nor any kind of furniture. In the middle there is a kind of chimney or ſtove three or four feet high. They generally feed upon rice, ſmall grain, and the animals which they catch, either by purſuing them, or by killing them with their arms. They run more ſwiftly than the beſt horſe; and this ſwiftneſs, ſay the Chineſe, proceeds from this, that till the age of fourteen or fifteen they entirely ſwaddle their knees and loins. For arms they have a kind of javelin, which they throw ſeventy or eighty paces with the greateſt exactneſs. Tho' nothing is more ſimple than their bows and arrows, yet they kill a pheaſant flying as ſurely as we do in Europe with a gun. They are very ſlovenly in their repaſts, and what they have prepared, they lay upon a piece of wood or mat, and eat it with their fingers almoſt like apes. They eat their fleſh half raw, and provided it has been but a little at the fire it appears excellent to them. For a bed they gather the freſh leaves of a tree which is very common among them. They extend themſelves

ſelves either on the ground, or on the floors of their cottages, when they go to ſleep. For habit they have only a bit of ſimple ſtuff, with which they cover themſelves from the middle to the knees. Upon their ſkins they cut many groteſque figures of trees, animals and flowers. This produces ſuch intenſe pains, as would prove mortal if the operation was performed at once, but they employ ſeveral months, and very often a whole year for this purpoſe. During this time they are under the ſevereſt torture, in order to gratify their propenſity to diſtinguiſh themſelves from the croud; for it is not permitted to all perſons indifferently to bear theſe ſigns of magnificence. This privilege is only granted to thoſe, who in the judgment of the moſt conſiderable men of the town have ſurpaſſed the reſt in running or hunting. All of them, however, may black their teeth, wear ear-rings, and bracelets above the elbows or wriſts, necklaces, and crowns of ſmall beads of various colours and many rows. The crown is terminated by a kind of tuft, compoſed of the feathers of a cock or pheaſant, which they gather with great care.

In the northern part, where the climate is not ſo hot, they cover themſelves with the ſkins of the ſtags which they take. Their habit has no ſleeves, and they wear a bonnet in form of a cylinder, and made of the leaves of banana-trees. Theſe bonnets they adorn with ſeveral crowns placed over each other, and tied with fillets of different colours. To the top of the bonnet they alſo fix a tuft of feathers, as thoſe in the ſouth do.

Their marriages have nothing barbarous in them. They do not buy women as at China. They have no regard to the riches of each other, and the parents almoſt never contract for any thing. When a young man wants to be married, and finds

a woman agreeable to him, he goes ſeveral days ſucceſſively, and ſerenades her before the door of the houſe in which ſhe lives. If the woman likes him, ſhe goes out to him. They agree upon their articles, and acquaint their fathers and mothers with their intention, who prepare the wedding feaſt, which is kept in the woman's houſe, where the man remains without returning to his father. From that time the man looks upon the houſe of his father-in-law as his own, and is the ſupport of it. The iſlanders do not like male children, but rather daughters, who may bring them grand-children to ſupport them in their old age.

Tho' the iſlanders are intirely ſubject to the Chineſe, they have ſtill ſome remains of their ancient government. Every village chuſes three or four of the oldeſt men who have the character of probity and candour, and theſe are judges over the reſt. They give a final determination of all differences; and if any one refuſes to ſtand to their judgment, he is forthwith baniſhed out of the village, without any hopes of ever returning to it, and no other village dares to receive him. They pay their tribute to the Chineſe in grain. To regulate what concerns this tribute, there is in each village a native of China, who learns the language in order to interpret to the mandarines. But theſe interpreters are mercileſs and cruel extortioners of the poor people.

Among theſe iſlanders, we find neither villainies, nor robberies, nor proceſſes. They are equitable, and love each other. They are attentive to the ſmalleſt ſignal from thoſe who have a right to command them. They are circumſpect, and extremely modeſt in their words.

Tho' Formoſa is not far from China, yet the Chineſe, according to their hiſtory, only began to know it in 1430, when the eunuch Ovan-ſan-pao returning from the weſt, was thrown upon it by a tempeſt. He carried ſeveral plants out of it, and ſeveral medicinal herbs, which are ſtill uſed with ſucceſs in China.

In 1564, a ſhip of the Chineſe ſquadron cruiſing on the eaſtern ſea of China, met with a corſair, who had taken poſſeſſion of the iſlands of Ponghou, where he had left ſome of his men. He no ſooner ſaw the Chineſe ſhip than he made a violent attack upon her; but after a combat of five hours he was obliged to fly to the iſlands of Ponghou. His enemy purſued him ſo cloſely, that by break of day the corſair found the entry of the port of Ponghou ſhut up by a part of the Chineſe ſquadron, which obliged Lint-ao-kien, which was the corſair's name, to moor at Formoſa. The Chineſe ſhip took the iſlands of Ponghou. Lint-ao-kien maſter of Formoſa ordered all its inhabitants to be killed, and ſetting ſail he retired to the province of Canton, where he died miſerably.

About the end of the year 1620, a Japoneſe ſquadron arrived at Formoſa, and made themſelves maſters of it. About the ſame time a Dutch veſſel was thrown by a tempeſt upon Formoſa. They found the Japoneſe not in a condition to annoy them. The country appeared beautiful to the Hollanders, ſays the Chineſe hiſtorian, and advantageous to their commerce. They repreſented the neceſſity they had of ſome proviſions, and other things to refit their veſſel, which had been much damaged by the tempeſt. They begged of the Japoneſe, that they would permit them to build a houſe on the frontiers of the iſland, which lies at one of the entries of the harbour, from

which they might afterwards reap ſome aſſiſtance in the commerce they ſhould carry on with Japan. The Japoneſe at firſt rejected the propoſal, but the Dutch inſiſted ſo ſtrongly, that they would take up no more ground than could be contained in an ox's ſkin, that the Japoneſe at laſt conſented. The Dutch took an ox's ſkin, which they cut into ſmall ſhreds, and ſewed to each other. With this they meaſured the ground they wanted, which was large enough to build a fort upon.

The building of this fort rendered the Dutch maſters of the port, and of the only paſſage thro' which large veſſels can enter into it. Perhaps the Japoneſe knew the importance of this too late. Be this as it will, whether the new fort gave them umbrage, or whether they did not find this iſland, as yet uncultivated, to anſwer their purpoſe, they ſoon after quitted it, and ſuffered the Dutch to remain maſters of it.

At this time China was all in an uproar, partly by the civil wars, and partly by the war it carried on againſt the Tartars, who at laſt took it. One of the Chineſe, who moſt courageouſly oppoſed the Tartars, was a man of fortune, whoſe name was Tching-tchin-cong. He, at his own expence, fitted out a ſmall fleet, and was ſoon followed by a multitude of Chineſe veſſels. By this means he became maſter of a very formidable fleet. The Tartars offered him the dignity of a king if he would become their friend. He refuſed the offer, but did not long enjoy his good fortune. His ſon who ſucceeded him in the command of his numerous fleet, beſieged ſeveral conſiderable towns, which he took, after having cut to pieces the army of the Tartars which came to their relief. Theſe firſt inſtances of ſucceſs did not long continue. He was, at laſt, conquered by the

the Tartars, and abſolutely expelled out of China. He then formed a deſign upon Formoſa, from which he reſolved to expel the Hollanders, in order to eſtabliſh a new kingdom there. This happened in the year 1661. He firſt made himſelf maſter of the iſlands of Ponghou, then advanced towards Formoſa, entered the port with his fleet, which conſiſted of nine hundred ſail, and ſent a body of his men on ſhore, in order to attack the fort by ſea and land. The ſiege laſted four months, during which the Dutch, who were only eleven in number, defended themſelves by their cannon, more happily than could be expected. Tching-tchin-cong was reduced to great deſpair, upon ſeeing ſo much courage and reſiſtance from this handful of Europeans, againſt ſo numerous an army as his own.

As the Chineſe had not the uſe of cannon, they could not anſwer thoſe of the Dutch, ſo that they had no hopes of reducing them but by famine, which required a long time, during which they could receive ſupplies from their Barbary ſhips, or from thoſe which went to trade at Japan. Tching-tchin-cong knew the whole difficulty of his enterprize; but he was out of China, without any hopes of ever entering it again under the Tartars, on whom he had made war. Beſides, he knew that if Formoſa was ſhut up againſt him, he ſhould have no expedient left to make his fortune. For this reaſon he determined to uſe his utmoſt efforts againſt the Dutch. Theſe laſt had four veſſels in the river, and had put one of their men into each, with a guard of Indians. The ſeven other Hollanders had ſhut themſeves up in the citadel or fort of Zealand. The Chineſe captain reſolved to ſacrifice ſome of his veſſels which he had converted into fire-ſhips, and taking the ad-

vantage of a violent north-east wind, he sent them among the Dutch vessels, and succeeded beyond his expectation; for of four ships three were burnt. Upon this he demanded the Hollanders in the fort to surrender, declaring that he would permit them to retire with all their effects; but that if they persisted to defend themselves, he would give them no quarter. The Dutch who had only one ship left, voluntarily accepted the offer. They loaded the ship with all their effects, restored the place to the Chinese, and retired.

Tching-tchin-cong at Formosa established the same laws, customs, and government with those of China; but he did not long enjoy his new conquest: for he died a year and some months after he took possession of his island. His son Tehing-tchin-cong succeeded him, but did little or nothing to cultivate the country which his father had obtained for him with so much care and fatigue. For a successor he left his son Tching-ke-san very young, and under the care of two officers who were intirely attached to him. In the year 1682, the Tartar emperors abolished the title of king of Formosa, and established a vice-roy in it. Tching-ke-san was obliged to abandon his states and return to Peking, where all the favour shewn him was to create him a count.

CHAP.

CHAP. IV.

Origin of porcelain, what the matter of it is, and the manner of preparing it; compoſition of the varniſh laid upon it; different ſpecies of it; manner of gilding it; ſtructure of the furnaces for burning it; caſes to bake it in; idol of it; its origin; wherein the ancient differs from the modern porcelain, &c.

THE annals of the city of Feou-leam relate, that ſince the year 442, the workers in porcelain have always ſupplied the emperors with it, and that one or two mandarines ſent from the court had the care of that work. 'Tis however probable, that before the year 442, porcelain was in uſe; and that it has been gradually brought to ſuch a degree of perfection as determines the richeſt Europeans to uſe it. It is not ſaid who was the inventor of it, nor to what experiment or chance we owe it. The fine porcelain, which is of a bright and lively white, and of a beautiful ſky blue, is all brought from King-te-tching. There is porcelain made in other parts; but it is very different from this both in colour and fineneſs. The emperors have brought to Peking workers in porcelain, and all the materials employed in making it, but their work never ſucceeded. King-te-tching alone, has the honour of ſending porcelain to all the parts of the world. The Japoneſe come to buy it at China. King-te-tching wants nothing but walls in order to make it a city. There are eighteen thouſand families in it. The merchants are rich, and their houſes ſo large as to contain a prodigious number of workmen. It is commonly

ſaid that it contains a million of inhabitants, who every day conſume ten thouſand loads of rice, and more than a thouſand hogs.

King-te-tching is ſituated on a plain, ſurrounded by high mountains. That towards the eaſt, which ſtands at its back, forms a kind of ſemicircle externally. The mountains at the ſides give paſſage to two rivers which meet each other. One of theſe is but ſmall, but the other is very large, and forms a beautiful port near a league in extent, in a vaſt baſon, where it loſes a great deal of its rapidity. In this port we ſometimes ſee two or three rows of ſhips from one end to the other. Such is the ſpectacle, when we enter by one of the mouths into the harbour. The clouds of flame and ſmoak which riſe in different parts eaſily diſcover the extent and windings of King-te-tching. At night one would think he ſaw a whole city on fire, or a great furnace with many vents. Perhaps this incloſure of mountains, forms a ſituation proper for making porcelain.

The matter of which it is made is compoſed of two kinds of earth, one of which is called Petunſe and the other Kaolin. This laſt is intermixed with corpuſcles which have a kind of ſplendor; but the other is ſimply white, and very fine to the touch. At the ſame time that a great number of large barques aſcend the river of Jaotcheou to King-te-ching to be loaded with porcelain, almoſt as many ſmall ones deſcend frum Kimuen, loaded with Petunſe and Kaolin, reduced to the form of bricks: for King-te-ching produces none of the materials proper for the porcelain. The Petunſes, whoſe grain is ſo fine, are nothing elſe but pieces of rocks dug out of quarries, and moulded into this form. All ſtones are not proper for this purpoſe, otherwiſe it would not be neceſſary to go twenty or thirty leagues into the other province for it.

it. The Chineſe ſay, that the ſtone ought to be of a greeniſh colour.

The firſt ſtep of the preparation is this; they break theſe pieces of ſtone with a large bar of iron, after which they put the broken pieces into mortars, and with peſtles which have heads of ſtone covered with iron, they reduce them to a very fine powder. Theſe peſtles play continually either by the labour of men, or by water, as the hammers of our paper-mills do. After this they throw the powder into a large urn full of water, and ſtir it briſkly about with an iron peſtle. When they allow it to reſt ſome minutes, a kind of cream, four or five fingers breadth thick, floats on the ſurface. This they take off and pour into another veſſel full of water. Thus they ſeveral times agitate the water of the firſt urn, gathering the cream each time, till there remains none but the groſſer parts, which ſubſide to the bottom. Theſe are taken out and pounded afreſh.

With reſpect to the ſecond urn, into which they throw what they had collected from the firſt, they wait till a kind of paſte is formed at the bottom of it. When the water above this paſte appears very clear, they pour it off by inclination, that they may not diſturb the ſediment, and they throw this paſte into large moulds proper to dry it. Before it is quite hard they divide it into ſmall ſquare pieces, which are ſold by the hundred. This figure and its colour have made it get the name of Petunſe.

The moulds into which this paſte is thrown are a kind of very large and broad caſes. The bottom is filled with bricks laid end-ways, ſo as to make the ſurface equal. Over this bed of bricks, thus ranged, they ſpread a cloth, as large as the cavity of the mould. Then they pour in the matter, which they cover with another cloth, over

which they place a bed of bricks laid flat on each other. This is done in order to force out the water the ſooner, without loſing any thing of the matter of the porcelain, which by becoming hard, eaſily receives the form of bricks. There would be nothing more to be added to this labour, if the Chineſe were not accuſtomed to alter their merchandize; but people who roll ſmall grains of paſte in pepper, in order to cover them with it, and mix them with genuine pepper, do not care to ſell Petunſe without mixing ſome ſediments with it; for which reaſon they are obliged to purify them at King-te-tching before they make uſe of them.

The Kaolin which enters the compoſition of the porcelain, gives leſs trouble than the Petunſe; nature has a greater hand in producing it. There are mines of it in the boſom of certain mountains, which are covered internally with a reddiſh earth. Theſe mines are pretty deep, and contain the Kaolin in lumps, which they cut into ſquares, in the ſame manner with the Petunſe. The white earth of Malta, commonly called St. Paul's earth, has a great reſemblance to the Kaolin, tho' the former has not the little ſilver grains with which the latter is interſperſed.

'Tis from the Kaolin, that the fine porcelain derives all its ſtrength. Thus it is the mixture of a ſoft earth which gives ſtrength to the Petunſes, which are taken from the hardeſt rocks. Some Engliſh and Dutch bought ſome Petunſe, and brought it into their own countries to make porcelain; but their enterprize failed, becauſe they had no Kaolin.

Beſides the barques loaded with Petunſe and Kaolin, with which the ſkirts of King-te-tching are covered, we ſee others full of a whitiſh liquid ſubſtance;

ſtance; and this is the oil, which gives the porcelain its whiteneſs and luſtre. This oil or varniſh is drawn from the hardeſt ſtone, which is not ſurprizing, ſince it is thought that ſtones are principally formed of the ſalts and oils of the earth, which mix and are intimately united with each other.

Tho' the ſpecies of ſtone, of which the Petunſes are made, may be indifferently uſed to obtain the oil, yet they generally chuſe that which is whiteſt, and has the greeneſt ſpots. Tho' the hiſtory of Feu-oleam does not deſcend into a detail, yet it ſays, that the good ſtone for the oil, is that which has ſpots, of the colour of a cypreſs leaf, or which has red marks on a browniſh ground. This ſtone muſt be firſt well waſh'd, after which it undergoes the ſame preparations with the Petunſe. When they have in the ſecond urn the hardeſt parts they could take from the firſt, they throw a pound of ſtone or mineral like alum, upon a hundred pounds or thereabouts of this cream. It muſt be made red by the fire, and afterwards pounded. This is, as it were, the preſſure which gives it conſiſtence, tho' they take care to keep it always liquid.

This oil of ſtone is never employed alone. They mix another with it, which is, as it were, the ſoul of it. The compoſition is as follows; they take large pieces of quick-lime, on which they throw a little water to diſſolve and reduce them to pieces. Then they make a bed of dry fern, over which they lay another of ſlak'd lime. Of theſe they put ſeveral alternately over each other. After this they ſet fire to the fern. When the whole is conſumed, they ſpread theſe aſhes on new beds of dry fern. This is done five or ſix times, and the oftener they do it the oil is the better. Formerly, ſays the hiſtory of Feou-leam, beſides fern they

uſed

uſed the wood of a tree whoſe fruit is called Se-tſe. If we judge of this tree by the ſourneſs of the fruit before it is ripe, and by its ſmall top, we ſhould take it to be a kind of medlar. 'Tis no longer uſed at preſent, probably becauſe it is become too ſcarce in that country. Perhaps, 'tis for want of this wood, that the preſent porcelain is not ſo beautiful as thoſe of former times. The nature of the quick-lime and fern alſo contributes to the goodneſs of the oil; and it is obſervable, that what is brought from ſome parts is better than what comes from others.

When they have a certain quantity of the aſhes of quick-lime and fern, they throw them into an urn full of water. Upon an hundred pounds they muſt diſſolve one pound of Ke-kao, ſtir the mixture well, and allow it to reſt, till there appear on the ſurface a cloud or cruſt, which they take off, and put into a ſecond urn. This they repeat ſeveral times. When a kind of paſte is formed at the bottom of the ſecond urn, they pour off the water by inclination, and keep this liquid paſte, which is the ſecond oil, to be mixed with the former; for a juſt mixture of theſe two depurated oils they muſt be equally thick. In order to judge of this, they ſeveral times plunge into each of them pieces of Petunſe, by taking which out, they ſee upon their ſurface whether they are equally thick. This is what relates to the quality of thoſe two oils. As for the quantity, the beſt way is to mix ten meaſures of the oil of ſtone, with one meaſure of the oil of quick-lime and fern. They who are moſt ſparing never put leſs than three meaſures. If the merchants who ſell this oil have the leaſt inclination to cheat, they can eaſily augment its bulk by throwing water into it, and adding a proportional quantity of Ke-kao, to cover this fraud, and hinder the oil from being too liquid.

Before

Before I explain the manner of applying this oil, or rather varniſh, I ſhall deſcribe how the porcelain is made. We ſhall firſt begin with the work performed in the leaſt frequented parts of King-tetching. There in an incloſure of walls, they build vaſt piles, where we ſee one ſtory above another a prodigious number of earthen urns. In this incloſure live and work an incredible number of labourers, each of whom has his taſk ſet him. Before a piece of porcelain is taken out of this to be carried to the furnace, it paſſes thro' more than twenty hands, and that without confuſion. They have no doubt found that by this means the work is much more quickly carried on.

The firſt labour conſiſts in purifying again the Petunſe and the Kaolin from the dregs which remain in them when they are ſold. They bruiſe the Petunſe and throw it into an urn full of water. Then they diſſolve it by ſtirring it about with a large ſpatula. They let it reſt ſome moments, and take off what ſwims on the ſurface, and ſo of the reſt, in the manner above explained.

As for the pieces of Kaolin, it is not neceſſary to break them. They only put them into a baſket, which they immerſe into an urn full of water. The Kaolin is eaſily diſſolv'd of itſelf; there generally remains a ſediment, which muſt be thrown away. In a year's time the dregs are accumulated, and form great heaps of white ſand ſeparated from the Kaolin. Thus prepared there muſt be a juſt mixture of them. For fine porcelain, they put in as much Kaolin as Petunſe; for ordinary porcelain they put four parts of Kaolin to ſix of Petunſe. The leaſt they ever put are five parts of Kaolin to three of Petunſe.

After this firſt operation they throw this maſs into a large cavity well paved and cemented every

where. Then they tread upon it and knead it till it becomes thick.

From this maſs thus prepared, they take different pieces, which they extend upon large ſlates. On theſe they knead and form them into all different ſhapes, taking care that there be no flaws in it, nor no mixtures of extraneous bodies; for a hair, or a grain of ſand, would ſpoil the whole work; for want of rightly managing this maſs, the porcelain ſplits, cracks and warps. 'Tis from theſe firſt elements, that we have ſo many beautiful works of porcelain, ſome of which are made on the wheel, others are only made upon moulds, and afterwards perfected by the chiſſel.

All the plain or ſmooth works are made in the former manner. A cup, for example, when it comes off the wheel, is no more than a kind of imperfect cavity, almoſt like the crown of a hat before it is formed on the block. The workman firſt gives it the diameter and height he wants, and it comes out of his hands almoſt as ſoon as he has begun; for he has only three farthings Engliſh money for a ſhelf, and every ſhelf contains twenty-ſix pieces. The foot of the cup is at that time only a piece of earth of the bulk and diameter which it ought to be of, and which is hollowed out with the chiſſel, when the cup is dry, and has acquired conſiſtency; that is, after it has received all its ornaments. This cup, on coming from the wheel is firſt received by another workman, who places it upon its bottom. A little after it is given to a third, who applies it to its mould, and gives it the ſame figure. This mould is a kind of turning wheel. A fourth poliſhes this cup with the chiſſel, eſpecially near the lips, to render it thin and tranſparent. He ſcrapes it ſeveral times, moiſtening it a little with water, if it is too dry, leſt it ſhould break.

break. When the cup is taken off the mould, it muſt be rolled gently on the ſame mould, without preſſing more on one ſide than another, without which there will either be flaws in it, or it will warp. It is ſurpriſing to ſee with what ſpeed one of theſe cups paſſes thro' ſo many different hands. Some ſay that a piece of porcelain has paſſed thro' the hands of ſeventy workmen.

The large pieces of porcelain are made at two different times. One half is raiſed on the wheel by three or four men, who ſupport it, each on the ſide next to him, to give it its figure. The other half being almoſt dry is applied to it, and united with it by the matter of the porcelain diluted in water, which ſerves as a kind of mortar or cement. When theſe pieces, thus united, are intirely dry, they with a knife ſcrape the internal and external ſides of the part where the union was, which by means of the varniſh with which they cover it, becomes equal to the reſt. 'Tis in this manner that they apply handles, ears, and other ornaments to veſſels. This principally regards the porcelain made upon moulds or by the hands, ſuch as ribbed pieces, or ſuch as are of a whimſical figure; ſuch as animals, idols, or buſts, which the Europeans beſpeak, and other things of a ſimilar nature. Theſe kinds of moulded works are made in three or four pieces, which they join to each other, and afterwards perfect with inſtruments proper to hollow, poliſh, and repair the different parts which had eſcaped the mould. As for their flowers and other ornaments which are not raiſed, but, as it were, engraved, they are applied to the porcelain with ſeals and moulds. They alſo apply raiſed work, prepared almoſt in the ſame manner that gold lace is ſewed on a coat.

What follows relates to theſe kinds of moulds. When they have the model of the piece of porcelain which is wanted, and which cannot be imitated on the wheel by the hands of the workman, they apply over the model, earth proper for the moulds. This earth receives the impreſſion, and the mould is made of ſeveral pieces, each of which is pretty large. They ſuffer the mould to become hard, when the figure is imprinted on it. When they want to uſe it, they place it near the fire for ſome time, after which they fill it with porcelain, in proportion to the thickneſs they want to give it; they preſs with their hands on all parts, and then for a moment preſent the mould to the fire. The imprinted figure is forthwith detached from the mould by the action of the fire, which a little conſumes the humidity which glew'd this matter to the mould. The different pieces of the whole drawn ſeparately are afterwards re-united, with the ſomewhat liquid matter of the porcelain. In this manner they make the figures of animals, which are all ſolid. They leave this maſs to harden, give it the figure propoſed, perfect it with the chiſſel, or add the parts formed ſeparately. Theſe kinds of works are made with great care and pains. When the work is finiſhed they lay on the varniſh and bake it. Then, if they pleaſe, they paint it of various colours and gild it. Then they bake it a ſecond time. Pieces of porcelain thus finiſhed, are ſold extremely dear. All theſe works ought to be defended from the cold; humidity makes them ſplit when they are not dried equally, for which reaſon they ſometimes keep fires in theſe laboratories.

Theſe moulds are made of a fat yellow earth, which is found in a place near King-te-tching. This earth is kneaded, and when it is well united,

and

and become a little hard, they take a quantity of it neceſſary for the mould, and beat it ſtrongly. When they have given it the deſired figure, they dry it, and form it on the wheel. This kind of work is ſold dear. In order ſpeedily to anſwer a commiſſion, they make a great quantity of moulds, that vaſt numbers of labourers may be employed at once. If theſe moulds are taken care of, they laſt a long time. A merchant who has them ready for the porcelain works beſpoke by an European, may ſell his commodity better, and make a much more conſiderable gain than another, who ſhould have them to make. If theſe moulds ſhould happen to crack or have their ſurfaces ſplintered, they are no longer of any ſervice, except for porcelain of the ſame figure but of a ſmaller ſize.

In this caſe they put them on the wheel and ſmooth them, that they may ſerve a ſecond time.

They often embelliſh their porcelain by making it paſs thro' the hands of painters, who are not much richer than the other workmen. At this we need not be aſtoniſhed, ſince except a few of them, they would only paſs in Europe for apprentices, who had been ſome months at the buſineſs. The whole ſcience of theſe, and of the Chineſe painters in general, is founded upon no principle, and only conſiſts in following a certain beaten track, aſſiſted with a narrow and confin'd imagination. They are ignorant of all the beautiful rules of this art. We muſt however confeſs, that they paint flowers, animals, and landſkips, which are admired on the porcelain, as well as on ſcreens, and the window-blinds of fine gauze.

The painting is divided in the ſame laboratory among a great number of hands. One only forms the firſt coloured circle near the edges of the china. The other traces the flowers, which a third paints.

paints. One is for rivers and mountains, another for birds, and others for animals. Human figures are generally moſt mangled by them. Certain landſkips and plans of cities illuminated, carried from Europe to China, hardly afford us the liberty of laughing at the Chineſe method of painting.

As for the colours of the Chineſe painting, they are of all ſorts. The moſt common in Europe is of a lively blue on a white ground. There are ſome in which this gtound reſembles that of a burning glaſs. Some are intirely red, and among theſe ſome are coloured in oil, while others are of a blown red, and intermixed with ſmall points almoſt like our water colours. When theſe two works ſucceed to their perfection, which they rarely do, they are accounted extremely valuable, and are ſold at a great price.

There are ſome porcelains in which the landſkips are formed of a mixture of almoſt all ſorts of colours heightened by the gilding. Theſe are very beautiful when of the right kind, but the ordinary porcelain of this ſort, is not comparable to that painted with azure alone.

The annals of King-te-tching ſay, that formerly the meaner people only uſed white porcelain. This probably happened, becauſe they had not in the neighbourhood of Jao-tcheou found a leſs valuable azure than that us'd for the fineſt porcelain, which is brought far and ſold dear.

'Tis ſaid that a merchant who dealt in porcelain being ſhipwreck'd on a deſart coaſt, found there much greater riches than he had loſt. As he wandered on the coaſt, while the crew were building a ſmall bark of the wrecks of the ſhip, he perceived that the ſtones proper for the moſt beautiful azure were very common there. He brought a large cargo

cargo with him, and it is ſaid that by this means there was never ſo beautiful an azure ſeen at King-te-tching. The Chineſe merchant in vain attempted to find that coaſt again, on which he had been thrown by chance.

The azure is prepared in the following manner. They bury it in gravel, which is about half a foot high in the furnace; here they bake it twenty-four hours. Then they reduce it to an impalpable powder as well as the other colours, not upon marble, but in large porcelain mortars, whoſe bottoms are without varniſh, as well as the peſtles employed to pound it.

The red colour is produced with copperas. They put a pound of copperas in a crucible, which they lute with another crucible, in the ſuperior end of which is a ſecond aperture, which is covered in ſuch a manner, that it may be eaſily uncovered, if neceſſity requires. They ſurround the whole with a large char-coal fire; and that they may have the ſtronger reverberation of the heat, they incloſe the whole with bricks. So long as the ſmoke riſes very black, the matter is not duly prepared. But as ſoon as a ſmall, fine and ſubtil cloud ariſes, it is ſufficiently done. Then they take a little of this matter, dilute it in water, and make tryal of it upon a piece of board. If a beautiful red is produced by it, they remove the fire which ſurrounds it, and in part covers the crucible. When the whole is cold they find a ſmall cake of this red at the bottom of the crucible: but the beſt red adheres to the ſuperior part of it. A pound of copperas yields four ounces of the red, with which they paint the porcelain.

Tho' the porcelain is naturally white, and rendered ſtill more ſo by the varniſh, yet there are certain figures for which they apply a particular white upon the porcelain, which is painted of ſeveral colours. This white is made of the powder

of transparent flints, which is calcin'd in the furnace, in the same manner as the azure. To half an ounce of this powder they add an ounce of ceruss pulverized. For example, to make the green, to one ounce of ceruss, and half an ounce of the powder of flints, they add three ounces of what they call Tom-hoa-prien, which, according to all appearances, are the finest scoriæ of copper reduced to powder.

The prepared green becomes the matter of the violet, which is made by adding a proper quantity of white. They add more of the prepared green, in proportion as they want the violet more deep. The yellow is made by taking seven drams of prepared white, to which they add three drams of copperas. All the colours laid upon the porcelain already bak'd, after they are varnished, do not appear green, violet, red, or yellow, till they are baked a second time. These different colours, says the Chinese book, are applied with ceruss, saltpetre, and copperas. Some say that they only employ ceruss, which is mixed with the colour, when they dissolve it in gum-water.

The red colour in oil is produced by mixing the red Tom-lou-hum, or even the red I have mentioned, with the ordinary oil of porcelain, and another oil made of white flints, in the same manner with the first species of oil. Several trials discover the particular quantity of each to be used. Then they leave the porcelain to dry, and bake it in the ordinary furnace. If, after the baking, the red comes out pure and sparkling, without the least stain, they have then attained to the perfection of the art. These kinds of porcelains do not sound when they are struck.

The other species of blown red is made thus: they have the red prepared; they take a pipe, of which the apertures are covered with fine gauze. They

They gently apply the lower end of the pipe to the colour laid on the gauze, after which they blow into the pipe againſt the porcelain, which is by that means beautified with red ſpots. This ſort of porcelain is ſtill dearer and rarer than the preceding, becauſe the production of it is more difficult, if the workman obſerves all the requiſite proportions.

The black porcelain has alſo its beauty and value. It is called Oumien. The black is leaded, and reſembles that of our burning glaſſes. The gold laid upon it renders it ſtill more agreeable. They give this black colour to the porcelain when it is dry; and for this purpoſe, they mix an ounce of azure with ſeven ounces of the ordinary oil of ſtone. Trials exactly teach the proportions of this mixture, according to the deeper or fainter colour they intend to give to the porcelain. When this colour is dry, they bake the porcelain, after which they lay on the gold and bake it again in a particular furnace.

There is alſo a kind of porcelain made, which externally is all pierced like pinking. In the middle is a cup proper to contain the liquor. The cup however is but one ſubſtance with the pinked work. There are other porcelains on which the Chineſe or Tartar ladies are painted to the life. The drapery, the complexion, and the features are all preſerved. At a diſtance theſe works are taken for enamel.

It is to be obſerved, that when they lay no other oil on the porcelain than that of white flints, this porcelain is of a particular ſpecies, and is called Tſou-tchi. It is all marbled and croſſed in all directions, with an infinite number of veins. At a diſtance one would take it for broken porcelain, the whole of whoſe pieces remained in their places, ſo that it reſembles Moſaic work. The colour which this

oil gives is a white ſomewhat cineritious. If the porcelain is all azured, and if they lay this oil on it, it will appear both cut and marbled when the colour is dry.

When they apply the gold they pound it, and diſſolve it in the bottom of a porcelain veſſel till they ſee under the water a ſmall canopy of gold. They ſuffer it to dry, and when they want to uſe it, they diſſolve a ſufficient quantity of it in gum-water. With thirty parts of gold they incorporate three parts of ceruſs, and lay it on the porcelain in the ſame manner with the other colours.

There is alſo a ſpecies of porcelain made in the following manner. They give it the ordinary varniſh and bake it, then paint it with different colours and bake it again. They ſometimes deſignedly delay the painting till after the firſt baking. Sometimes alſo they have recourſe to the ſecond baking, to conceal the faults of the porcelain, by applying colours to the defective places. This porcelain which is full of colouring, is agreeable to the taſte of a great many people. It generally happens that we feel inequalities on this ſort of porcelain, and theſe have been neceſſary either to ſupply the ſhades of the painting, or cover the defects of the porcelain. When the painting is dry, as well as the gilding, if there is any, they make piles of the porcelain, and putting the ſmall into the large veſſels, place them in the furnace.

Theſe furnaces may be of iron when they are ſmall, but generally they are of earth. Some of them are as high as a man, and almoſt as wide as one of our largeſt hogſheads for wine. They are made of ſeveral pieces, of the ſame matter with the caſes for the porcelain. They are large pieces about an inch thick, a foot high, and a foot and

an half long. Before they bake them they give them a figure proper for becoming round. They are placed over each other and well cemented. The bottom of the furnace is raiſed about a foot and an half above the ground, and placed upon two or three rows of thick, but not very broad bricks. Round the furnace is a well-built incloſure of bricks, which at its bottom has two or three air-holes, which ſerve as bellows to the fire. This incloſure is a foot and an half diſtant from the furnace, except in three or four places which are filled up, and ſerve as ſupports to the furnace. They at the ſame time remove the furnace and the incloſure, without which the furnace cannot ſtand. They fill the furnace with the porcelain they want to bake, a ſecond time, piling the ſmall into the large veſſels. When this is done they cover the mouth of the furnace with pieces like thoſe of which its ſides are built. Theſe pieces, whoſe edges are laid over each other, are cloſely united with mortar, or a kneaded earth fit for that purpoſe. They only leave an aperture in the middle, in order to obſerve when the porcelain is bak'd. They afterwards kindle a quantity of coals under the furnace. They alſo kindle coals on the covering, whence they throw the aſhes into the ſpaces between the incloſure of bricks and the furnace. The aperture in the top of the furnace is covered with a piece of a broken pot. When the fire is burning, they now and then look thro' this aperture, and when the porcelain appears to be ſhining and painted with briſk and lively colours, they remove the fire and take out the porcelain.

There may naturally ariſe a thought concerning the colours which are incorporated with porcelain already bak'd and varniſhed with ceruſs, to which, according to the annals of Feou-leam, they added

ſaltpetre and copperas. If we employ'd ceruſs in the colours with which we paint the ſquares of glaſs, and afterwards give them a ſecond kind of baking, might not this ceruſs reſtore to us the ancient ſecret of painting glaſs without deſtroying any thing of its tranſparency? but this is only to be judged of by experience.

The Chineſe had formerly the art of painting on the ſides of porcelain veſſels, fiſh and other animals, which were only perceptible when the veſſel was full of ſome liquor. They call this ſpecies Kia-tſin, that is, azure, is put in preſs, on account of the manner in which the azure is laid on. This is all that is retained of this ſecret. Perhaps in Europe we may conjecture at what the Chineſe are ignorant of. The porcelain to be painted thus ought to be very thin. When it is dry we ought to apply a pretty faint colour, not externally, as is uſual, but within on the ſides. They paint fiſh as moſt proper to appear when the cup is filled with water. When the colour is once dry they lay over it a ſlight bed of ſtrong but fine glue, made of the ſame earth as porcelain. This bed incloſes the azure between theſe two laminæ of earth. When the bed is dry they lay the varniſh on the inſide of the porcelain. Sometime after they put it on the mould and wheel. As it has received a body in the inſide, they render it externally as ſlender as poſſible, without penetrating to the colour. Then we muſt put the outſide of the porcelain into the varniſh; and when the whole is dry they bake it in the common furnace. This labour is extremely nice, and requires a dexterity of which the Chineſe are no longer maſters. They are, however, every now and then trying to recover the art of this magical painting; but to no purpoſe.

Be this as it will, we may at preſent ſay, that the beautiful azure appears again upon the porcelain, after having diſappeared for ſome time. When it is firſt applied, it is of a paliſh black colour. When it is dry and has received the varniſh, it is totally eclipſed, and the porcelain appears white. The colours are then buried under the varniſh. The fire makes them blow, almoſt in the ſame manner, as the natural heat brings out the moſt beautiful butterflies with all their variety of colours. It is to be obſerved, that before the varniſh is laid upon the porcelain, it is to be poliſhed, and its irregularities removed. For this purpoſe they uſe a pencil made of very fine feathers, which they moiſten a little with water, and paſs every where with a gentle hand.

Beſides, there is great art in the manner of laying the varniſh on the porcelain, both in putting on a ſufficient quantity, and ſpreading it equally on all parts. To very thin and ſlender porcelain they give, at two different times, two ſlight beds of varniſh; for if theſe beds were too thick, the weak ſides of the cup would not bear them, but bend immediately. Theſe two beds are as good as an ordinary varniſh, which they give the fine and ſtrong china. They lay on the one by impreſſion, and the other by immerſion. At firſt they take the cup in one hand on the out-ſide, and holding it ſloppingly over the urn where the varniſh is, they with the other throw as much into it as is ſufficient to varniſh it every where. This is done ſucceſſively to a vaſt number of cups. When they are dry within, they varniſh the out-ſide in the following manner: they hold one hand on the cup, and ſupporting it with a ſmall ſtick under the middle of its bottom, they plunge it into the veſſel full of varniſh, and immediately take it out.

'Tis to be remembered that the foot of the cup remains ſolid. In a word, it is not till it has received the varniſh and becomes dry, that they put it upon the wheel to hollow the bottom, after which they paint upon it a ſmall circle, and often a Chineſe letter. When this painting is dry they varniſh the cavity they have made under the cup; and this is the laſt hand put to it, ſince it is forthwith carried from the laboratory to the furnace to be baked.

It is ſurpriſing that a man ſhould keep in an equilibrium upon his ſhoulders, two long and narrow planks on which the porcelain is ranged; and that he ſhould thus paſs thro' ſeveral very populous ſtreets without breaking the ware. 'Tis true people avoid him carefully; for they would be obliged to repair the loſs done. But it is aſtoniſhing that the porter himſelf ſhould ſo well regulate his ſteps, and all the motions of his body, as to loſe nothing of his equilibrium.

The place where the furnaces are, preſents us with another ſcene. In a kind of area or entry before each furnace we ſee heaps of caſes deſtined to contain the porcelain. Every piece of porcelain, however coarſe, as well thoſe which have lids, as thoſe which have not, has its caſe. Theſe lids are but weakly attached to the lower part in baking, and are eaſily diſengaged by a ſmall ſtroke which they give them. As for the ſmall porcelain ware, ſuch as tea and chocolate cups, they have a caſe common to many of them. The workman in this imitates nature, who, in order to concoct and maturate fruits includes them under a common covering, that the heat of the ſun may only penetrate them gradually; and that his internal action may not be too much interrupted by the external air during the cold damps of the night.

These cases have in the inside a kind of bed of sand, which is covered with the powder of Kaolin, that the sand may not adhere too much to the foot of the cup, which is placed upon this bed, after having pressed it and given it the figure of the porcelain, which does not touch the sides of the case. The mouth of the case has no covering. A second case of the figure of the first, furnished in like manner with porcelain, is so fitted into it, as to cover it intirely, without touching the porcelain below. In this manner they fill the furnace with large piles of earthen cases all furnished with porcelain. By means of those thick coverings, the beauty, and if we may use the expression, the complexion of the porcelain is not exhaled by the fire.

With respect to the small pieces of porcelain, which are contained in large round cases, each of which is placed upon a supporter of earth about the thickness of two crowns, and as wide as its foot. The bottoms of these are also covered with the powder of Kaolin. When these cases are large they put no porcelain in the middle, because it would be too far from the sides, by which means the case being destitute of due strength would break and fall down, which endangers the whole pile. We must observe that these cases are the third of a foot in height, and some of them are not bak'd no more than the porcelain. However, they intirely fill those which have been already baked, and are still fit for use.

We must not forget the manner in which the porcelain is put into these cases. The workman does not touch it immediately with his hands; for by that means he might either break it, or produce irregularities in it. He draws it from off the plate by means of a small cord. This cord is

fixed

fixed at one end to two ſomewhat crooked branches of a fork of wood which he takes in one hand, while with the other he holds the two ends of the cord croſſed and open, according to the bulk of the porcelain. In this manner he ſurrounds it, raiſes it gently, and places it on the ſmall pedeſtal in the caſe. All this is done with incredible expedition.

We have already obſerved, that the bottom of the furnace was covered with a bed of gravel a foot and an half thick. This gravel is deſigned for the more ſecurely placing the piles of porcelain, whoſe rows which are in the middle of the furnace are at leaſt ſeven foot high. The two caſes at the foot of each pile are empty, becauſe the fire does not act ſufficiently below, and becauſe they are in ſome meaſure covered by the gravel: for the ſame reaſon the caſe placed at the top of the pile is left empty. In this manner they fill the whole furnace, leaving no vacuity, except at the place which is immediately under the vent.

In the middle of the furnace they place the piles of the fineſt porcelain. At the bottom ſuch as are coarſer; and at the entry ſuch as are of a deeper colour, which are compoſed of an equal quantity of Petunſe and Kaolin, and on which they have laid a varniſh made of the ſtone which has ſpots a little black or red, becauſe that oil has a ſtronger body than the other. All theſe piles are placed very near each other, and united below, above, and at the middle, with ſome pieces of earth which they apply to them, in ſuch a manner, however, that the flame has a free paſſage to inſinuate itſelf equally on all ſides. This depends on the eye and dexterity of the workman, and is abſolutely neceſſary to ſucceed in his attempt, and avoid certain accidents nearly

nearly ſimilar to thoſe which ariſe from obſtructions in the animal body.

All earths are not proper for the caſes which contain the porcelain. There are three ſorts uſed. The one is yellow and very common. It is uſed in the greateſt quantity, and conſtitutes the baſe. The other is called Lao-tu, that is, a ſtrong earth. The third, which is an oleous earth, is called Yeou-tou. Theſe two laſt earths are in the winter time taken from very deep mines, where it is not poſſible to work during the ſummer. If they were mixed in equal quantities, which would coſt a little more, the caſes would laſt longer. They bring theſe earths, ready prepared, from a large village at the foot of the river, about a league from King-te-tchin. Before they are bak'd they are yellowiſh, but when baked they are of a dark red colour. As the workers are very ſparing they put in moſt of the yellow earth, which is the reaſon why the caſes do not laſt above two or three bakings, after which they ſplit altogether. If they are but ſlightly ſplit, they tie them round with a band of oſiers; the band is burnt, but the caſe ſerves for that time without doing any harm to the porcelain. They muſt not fill a furnace with new caſes which have not been uſed before. The half of them muſt be ſuch as have been baked before. Theſe are placed at top and at bottom. In the middle of the piles they place ſuch as are new-made. Formerly, according to the hiſtory of Fou-leam, all the caſes were bak'd ſeparately in a furnace, before they were uſed for baking the porcelain, no doubt, becauſe at that time they had leſs regard to the expence than to the perfection of the work. It is not ſo at preſent, becauſe the workers in porcelain are multiplied to an incredible number.

We ſhall now conſider the ſtructure of the furnaces. They are placed at the bottom of a pretty long entry, which ſerves as a bellows to them, and is of the ſame uſe as the arch of the glaſs-founders. The furnaces are, at preſent, larger than they were ſome ages ago, ſince in former times, according to the Chineſe book, they were only ſix foot in heighth and breadth. At preſent they are two fathoms high, and almoſt four fathoms broad. The arch, as well as the body of the furnace, is pretty thick, that they may be able to walk upon it without being incommoded by the fire. This arch, in the inſide, is neither flat nor formed into a point, but runs ſlanting, and grows narrower in proportion as it approaches the great vent, which is at the extremity, and thro' which the flames and ſmoke are diſcharged. Beſides this vent the furnace has in its top five ſmall apertures, which are, as it were, the eyes of it. They cover them with ſome broken pots, in ſuch a manner however, that they aſſiſt the air and fire of the furnace. 'Tis by theſe eyes that they judge whether the porcelain is baked. They uncover the eye which is a little before the great vent, and with an iron tongs open one of the caſes. The porcelain is enough baked, when there is a clear fire in the furnace, when all the caſes are red hot, and when the colours are clear and bright. Then they diſcontinue the fire and cloſe up the door of the furnace for ſome time. The furnace has a deep fire all over it. They paſs over a plank into the cavity of the furnace, in order to range the porcelain. When they have kindled the fire they forthwith ſhut the door, leaving in it an aperture neceſſary to throw in pieces of wood, a foot long but very ſmall. They firſt heat the furnace for a day

day and a night. Then two men, who relieve each other, conſtantly throw wood into it. For one baking they generally burn fourſcore loads. To judge of this matter, by what tht Chineſe book ſays, that quantity cannot be ſufficient. In it we are aſſured that they burned two hundred and forty loads for this purpoſe, and twenty more if the weather was rainy, tho' at that time the furnaces were ſmaller by one half, than thoſe us'd at preſent. They at firſt kept up a gentle fire in them for ſeven days and ſeven nights, and on the eighth day they made a very ſtrong fire. It is to be obſerved, that at this time the caſes of the ſmall porcelain were baked apart, before they were put into the furnace. It muſt alſo be owned, that the ancient porcelain had more ſubſtance than the modern.

The old workers alſo obſerved one thing which is neglected at preſent. When there was no more fire in the furnace, they did not open the door till after ten days for large porcelain, nor till after five days for the ſmall. At preſent indeed they delay opening the door and taking out the large porcelain for ſome days; for without this precaution they would ſplit. But for the ſmall, if the fire has been extinguiſhed in the evening, they take them out the next day. The deſign is probably to ſpare wood for the next baking. As the porcelain is exceſſively hot, the workman, in order to lay hold of it, uſes long ſlings hung about his neck.

After having in one day burnt a hundred and fourſcore loads of wood in the entry of the furnace, it is ſurpriſing that the next day no aſhes ſhould be found. They who attend theſe furnaces muſt be well accuſtomed to the fire. 'Tis ſaid they put ſalt into their tea, that they may drink

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as much of it as they pleaſe, without being the worſe. But it is eaſy to comprehend how this ſalted liquor allays their thirſt.

After what has been ſaid, it is not ſurpriſing that porcelain ſhould be ſo dear in Europe. It is alſo to be obſerved, that beſides the great gain of the European merchants, and that which their Chineſe commiſſioners make of them, it is rare that a baking ſucceeds intirely; that often the whole is loſt, and that on opening the furnace they find the porcelains and caſes reduced to a maſs as hard as a rock; and too great a fire, or ill-tempered caſes, may deſtroy the whole; that it is not eaſy to regulate the fire which ought to be applied; that the nature of the weather inſtantaneouſly changes the action of the fire, the quality of the ſubject on which it acts, and that of the wood which ſupports it. Thus for one workman who becomes rich, there are an hundred others who ruin themſelves, and tempt fortune, from the hopes they have of amaſſing wherewithall to ſet up a merchant's ſhop.

Beſides, the porcelain tranſported into Europe is almoſt all made upon new models, which are often whimſical, and in which it is difficult to ſucceed. Provided it has but the ſmalleſt fault it is diſliked by the Europeans, who will have nothing but what is perfect; for this reaſon it remains in the hands of the workmen, who cannot ſell it to the Chineſe, becauſe it is not agreeable to their taſte: it is therefore neceſſary, that the pieces ſold ſhould defray the expence of ſuch as are rejected.

According to the hiſtory of King-te-tchin, the gain formerly ariſing from porcelain was much greater than at preſent. This can hardly be believed; for there was not at that time ſo great a vent for porcelain

celain in Europe. This happens becauſe the living is at preſent dearer than before ; becauſe the wood in the neighbouring mountains being exhauſted, they are obliged to bring it a great way, and at a vaſt expence ; becauſe the profit is divided among ſo many different perſons ; and laſtly, becauſe the workmen are leſs ſkilful than they were in former times, and conſequently leſs ſure in ſucceeding. This may alſo proceed from the avarice of the mandarins, who employing a great many workmen, make rich preſents to their protectors at court, and pay the labourers ill, which are ſufficient reaſons why the merchandize ſhould be dear, and the merchant poor.

The difficulty of imitating certain models ſent from Europe, is one of the circumſtances which augment the price of porcelain ; for all the workmen cannot labour upon all the models ſent from foreign countries. Some of them are impoſſible to be imitated in China, juſt as ſome of their work ſurprize ſtrangers, and are thought impoſſible to be done. The following are ſome examples of this. We there ſee a large porcelain lanthorn, thro' which a flambeau enlightens a whole room. This work had been beſpoke by the hereditary prince, who alſo beſpoke ſeveral muſical inſtruments, and among the reſt a kind of ſmall organ called T-ſeng, which is near a foot high, and compoſed of fourteen pipes, whoſe melody is very agreeable. They alſo ſucceed perfectly in flutes, flagelots, and another inſtrument called Yun-lo, which is compoſed of ſeveral ſmall round and ſomewhat concave plates, each of which has a particular ſound. They ſuſpend nine of them in a ſquare which correſponds to different ſtages, which are touched with ſticks like the drum.

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There is a ſmall chime which agrees with the ſound of other inſtruments, and the voice of muſicians. It is neceſſary, they ſay, to make a great many experiments, in order to diſcover the thickneſs and the degree of baking proper for the tones neceſſary for harmony. We may perhaps imagine, that the Chineſe have for this purpoſe the ſecret of incorporating a little metal in the body of theſe porcelains to vary their ſounds. But metal is ſo little capable of being united with porcelain, that if a copper farthing was put on the top of a pile of porcelain placed in the furnace, this farthing being melted, would penetrate all the caſes and all the porcelains of the pile, ſo that each of them would have a hole in its bottom. Nothing better ſhews what motion the fire gives to every thing included in the furnace; for the workmen aſſure us, that every thing there is, as it were, fluid and fluctuating.

To return to ſuch of the Chineſe works as are curious, they ſucceed principally in groteſque pieces and the figures of animals. The workmen make ducks and tortoiſes which float upon the water. They make cats painted in the natural manner, which upon their head carry a ſmall lamp, the flame of which forms the two eyes of the animal. By this means the rats are frighted in the night time. They alſo make a great many ſtatues of Kouan-in, a goddeſs celebrated in China. They repreſent her holding an infant in her arms, and ſhe is invok'd by barren women who want to have children. She may be compared to the antique ſtatues which we have of Venus and Diana, with this difference, that the ſtatues of Kouan-in are very modeſt.

There is another kind of porcelain, the making of which is very difficult, ſo that it is very uncommon. The body of this porcelain is extreme-

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ly thin, and its ſurface very even, both within and without. It has mouldings however in it, groupes of flowers, for example, and other ſimilar ornaments. It is made in the following manner: when it is taken off the wheel, they put it on a mould on which the figures are engraved, and theſe are imprinted on the inſide. Externally they render it as fine and ſmooth as poſſible, working it with the chiſſel, after which they varniſh it and bake it in the ordinary furnace.

The European merchants ſometimes deſire the Chineſe workmen to give them plates of china for tables, the ſeats of chairs, or the frames of pictures: but theſe cannot be had. The largeſt and longeſt plates are about a foot ſquare. If they are made larger, let them be as thick as they will, they warp. For this reaſon, inſtead of making theſe plates thick, they make them with two ſurfaces which they unite, leaving the inſide hollow. In the two ſides they make two apertures, to enchaſe them in joyners work or in the backs of chairs, where they make an agreeable appearance.

The hiſtory of King-te-tchin ſpeaks of ſeveral works ordered by the emperors, which they in vain attempted to make. The grandfather of this preſent emperor beſpoke urns almoſt of the ſame figure with thoſe pots in which we put orange-trees. Theſe urns he wanted to contain ſmall red, gold, and ſilver-coloured fiſh, which are accounted curioſities. Perhaps he alſo intended to bath in theſe veſſels; for they were to have been three feet and an half in diameter, and two feet and an half high. The bottom was to have been half a foot thick, and the ſides were to have been the third of a foot in thickneſs. The workmen laboured three years ſucceſſively at theſe veſſels, and made two hundred, none of which ſucceed-

ed. The same emperor ordered plates for the porch of an open gallery. Every plate was to be three feet high, two feet and an half broad, and half a foot thick. All these things, say the annals of King-te-tchin, could not be made, for which reason the mandarines of that province petitioned the emperor to have the work discontinued.

As every profession has its idol; and as divinity is there as easily communicated as the quality of count or marquis in Europe, it is not surprizing that there should be a god of porcelain. The Pousa, which is the name of this idol, owes its origin to these designs which the workmen cannot execute. 'Tis said that formerly an emperor would absolutely have porcelain upon a model which he gave. It was several times represented to him, that the thing was impossible; but all these remonstrances only served to excite his curiosity. The emperors, during their lives, are the most formidable deities in China, and they often believe that nothing ought to oppose their desires. The officers therefore redoubled their care, and used all manner of rigour to the workmen. These unfortunate creatures spent their money, took a great deal of trouble, and only received blows. One of them in a fit of despair, threw himself into a burning furnace, and was consumed in an instant. The porcelain, as is said, baked in that furnace, came out perfectly beautiful, and agreeable to the taste of the emperor, who demanded no more since that time. That unfortunate man pass'd for a hero, and afterwards became the idol which presides over works of porcelain.

As porcelain has been in great esteem for so many ages, perhaps the reader may want to know wherein that of former times differs from the present, and what the judgment of the Chi-

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neſe is in this particular. It is not to be doubted but China has its antiquaries, who are prepoſſeſſed in favour of their ancient works. Tho' the Chineſe are certainly admirers of antiquity, yet ſome of them ſtand up in defence of the modern work. But the porcelain does not, like old medals, give us an acquaintance with remote times. The old porcelain may be adorned with ſome Chineſe characters, which, however, denote no point of hiſtory; ſo that the curious find nothing in it but the taſte and colours to make them prefer it to that of the preſent days. 'Tis ſaid in Europe that porcelain muſt be long buried in the earth, before it arrives at its perfection. This is a falſe opinion, at which the Chineſe laugh. The hiſtory of King-te-tchin, ſpeaking of the moſt beautiful porcelain of former times, ſays, that it was ſo much ſought after, that the furnace was hardly opened, till the merchants were diſputing with each other who ſhould have the firſt parcel. This by no means ſuppoſes that it was buried in the earth.

'Tis true, in digging in the ruins of old buildings, and eſpecially in cleaning old wells, there are ſometimes beautiful pieces of china found, which have been hid during revolutions in the ſtate. This porcelain is beautiful, becauſe the natives only hid what was valuable, that they might find it again, when the troubles were at an end. If it is eſteemed, it is not becauſe it has acquired any new degree of beauty in the earth, but becauſe it has retained its ancient beauty; and this alone is of great importance in China, where they give large ſums for the ſmalleſt veſſels, which were uſed under the emperors Yan and Chun, who reigned many ages before the dynaſty of Tang, at which time porcelain began to be uſed by the emperors. All that porcelain acquires by lying long in the earth, is

ſome change in its colouring or complexion, which ſhews that it is old. The ſame happens to marble and ivory, but more ſpeedily, becauſe the varniſh hinders the moiſture from inſinuating itſelf ſo eaſily into the porcelain.

According to the annals of King-te-tchin, there were formerly urns ſold at fifty-eight or fifty-nine taels, which amount to more than eighty crowns. What an immenſe ſum muſt theſe have been worth in Europe? The book ſays, that there was a furnace built on purpoſe for each of theſe urns, and that no expence was ſpared on them.

Certain mandarins, to their protectors at court make preſents of old porcelain, which they have the talent of makng themſelves; that is, they have found the art of imitating ancient porcelain, or at leaſt ſuch as is pretty old. The matter of theſe falſe Kou-tongs, or counterfeit antiques, is a yellow earth found near King-te-tchin. A plate of this earth weighs as much as ten porcelain ones of the ſame ſize. There is nothing particular in making this kind of porcelain, if not that they give it a varniſh made of yellow ſtone mixed with ordinary oil, which prevails moſt in the compoſition. This mixture gives the porcelain a ſea-green colour. When it is baked, they throw it into a very rich broth of fowls and other victuals, in which it is boil'd. After this they put it into the filthieſt ſink they can find, and there leave it a month or more. When it comes out of this ſink it paſſes for three or four hundred years old, or at leaſt, as old as the dynaſty of Ming, when the porcelain of this colour and thickneſs was much eſteemed at court. Theſe ſpurious antiques likewiſe reſemble the genuine ones in this, that when they are ſtruck, they do not ſound, and when they are applied to the ear, they produce no humming noiſe.

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The natives of China are almoſt as curious about glaſſes and cryſtals which come from Europe, as the Europeans are of the Chineſe porcelains: but whatever eſteem the Chineſe have for our commodities of this kind, they do not croſs the ſeas for European glaſſes, finding their own porcelain of more uſe, becauſe it bears hot liquors. A perſon may hold a cup of boiling tea without burning himſelf, if he knows how to take it in the Chineſe manner; which cannot be done with a ſilver cup of the ſame thickneſs and ſize. Porcelain has its ſplendor as well as glaſs, and the leſs tranſparent, the leſs brittle it is. What happens to newly-made glaſs, alſo happens to porcelain, which excellently denotes a nearly ſimilar conſtitution of parts. Good porcelain has a clear ſound like glaſs; and if glaſs is cut with a diamond, this laſt is alſo uſed for joining pieces of broken porcelain; and this conſtitutes a particular trade in China. The natives uſe a diamond like a needle to make ſmall holes in the body of the porcelain, thro' which they put a ſlender piece of tin weir; and by that means render the porcelain fit for uſe, when at the ſame time the place where it was broken is hardly obſervable.

CHAP. V.

Whether the traditions of China derive their origin from Egypt. Whether the conquests of Sesostris have been carried as far as China. The difference of the Egyptian hieroglyphics and the Chinese characters. Whether there are slaves in China. The origin of the famous festival of lanthorns. Cause of the frequent famines and burnings in China.

SOme assert that most of the Chinese traditions derive their origin from Egypt, and found their assertion on the history which informs us that Sesostris subdued the nations on the other side the Ganges, and advanced as far as the main ocean; that he might therefore have gone to China, and have established some colonies there; and that this conjecture may be confirmed, by an enumeration of several Chinese customs, almost entirely conformable to those of the Egyptians.

The historical facts which seem to destroy this conjecture are briefly those: Sesostris the conqueror reigned about fifteen centuries before Christ. It appears pretty certain that he waged war against the Assyrians and Scythians, and that he subdued Phœnicia, Syria, and almost all Asia Minor. The Greek historians inform us, that he was not nine years absent from his states, and that he interrupted his conquests in order to return to them, because his brother Armais, to whom he had entrusted the government, wanted to take possession of the throne. But is it equally certain that he carried his conquests as far as the Ganges, and that he there subdued the nations, which he could not do till after the

the expeditions we have related; that from the Ganges he paſſed to China, there eſtabliſhed colonies, and erected pillars as monuments of his victories, as we are told he every where did, and afterwards returned to Egypt to expel his brother? If all this is not impoſſible, it is at leaſt very hard to be believed; for at that time the paſſage from the Indies to China, was much more impracticable than it is at preſent, eſpecially for an army. It is very uncertain whether the towns of Bochara and Samarcand, ſo uſeful to the caravans, exiſted at that time; and whether there were other ſimilar places of refreſhment for merchants and travellers.

Perhaps it may be ſaid, that Seſoſtris only ſent a detachment of his army into China, to inform themſelves of the nature of the country, and the character of the inhabitants. But at that time, and even before, the entry of China was forbidden to all ſtrangers, except ambaſſadors, who were only admitted with a ſmall retinue. The Chineſe treated them well, made preſents to them, and ſent them back to their frontiers, attended by a crowd of people, without ſuffering any of them to remain in China, or ſettle in it; and this cuſtom is ſtill obſerved to all people.

Shall we ſay that Seſoſtris, whom nothing reſiſted, and who thought himſelf maſter of the world, humbled himſelf ſo far as to ſend an ambaſſador to China, ſuppoſing he knew it? Would he not rather have formed a deſign of entering it as a conqueror; and would he not have imagined that the Chineſe would give him as little trouble as the Indians? Of this we have not a word in the Chineſe hiſtory, tho' it ſpeaks of the irruptions which have been made by ſome more neighbouring nations, among whom there might be ſome Egyp-

tians caſually mixed. It is probable, that at this time the Egyptians and Chineſe had no knowledge of each other; and that each of theſe two nations thought its own empire the firſt, or rather the only one in the world.

The ſimilar cuſtoms of the two nations are only probabilities, which when compared ſeem to deſtroy each other.

We ſee, ſay ſome people, hieroglyphics in both nations. There is the ſame diviſion of tribes in China as in Egypt, the ſame attachment to ancient cuſtoms, the ſame reſpect to parents and old people, and the ſame love for the ſciences, eſpecially aſtronomy. The feſtival of lanthorns in China, that of lamps in Egypt, the metempſychoſis, and perhaps the perpetuity of trades, ſay they, are all circumſtances which prove a communication between theſe two empires.

It muſt be confeſſed that this parallel is at firſt view ſomewhat ſtriking. and favours the communication now mentioned. However, if we examine matters narrowly and circumſtantially, we ſhall find that it does not prove the point intended. Let us begin with the hieroglyphics.

Theſe, according to the two Greek words of which the name is compounded, ſignify no more than certain ſacred ſymbols or figures, by which the Egyptians uſed to repreſent the tenets of their religion and morality. Theſe were admired and greatly extolled by the Greeks. In imitation of the Greeks, many Europeans ſeeing them engraved on beautiful pillars, have the more eaſily believed, that there was ſome latent myſtery in them which they could not comprehend.

If, in theſe days when China was not known, we had accidentally got an inſcription in Chineſe characters, perhaps theſe characters would have been

been equally admir'd, and ſome one or other of the literati, a ſet of men who pretend to be ignorant of nothing, would have given a deſcription of it in his own manner.

Were the hieroglyphics of Egypt immoveable? Was the meaning repreſented by them ſo fix'd that it could not be changed, but always ſignified the ſame thing? Were there no hieroglyphics but for the myſteries of religion? Were there not alſo ſome appropriated to ordinary uſes? When did the Egyptians begin to have them? Theſe are all queſtions of which we are ignorant, but which yet ought to be known, before we can tell which of theſe two nations had the advantage of the diſcoveries of the other.

The Chineſe characters are but improperly hieroglyphics, and have not been inſtituted for religious more than other uſes. They are arbitrary ſigns, which give us the idea of a thing, not by any relation they have with the thing ſignified, but becauſe it was intended that ſuch a ſign ſhould ſignify ſuch a thing, without any regard to the ſound; ſo that the different nations who afterwards uſed the Chineſe characters, as the Japoneſe, the Coreans, and the Tongkineſe, read them with the ſounds of their own particular languages, and affix the ſame ideas to them as the Chineſe do.

Theſe ſigns are ſo arbitrary, that often their number of ſtrokes may be changed, and their external configuration altered, without producing any variation in the meaning and idea affix'd to them. Is this the caſe with the hieroglyphics of the Egyptians? Do the neighbouring nations uſe them? Had they any of them for all the uſes of civil life? Could the ſame hieroglyphic have different ſenſes according as it was differently uſed in diſcourſe, as happens to the Chineſe characters?

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The Chineſe characters were invented by Tſang-kiai, who lived two thouſand years before Chriſt. Did the Egyptian hieroglyphics ſubſiſt at this time? The only conjecture we can draw from circumſtances, is that the Egyptians and Chineſe having laid the foundations of two great monarchies, muſt have had occaſion for ſigns and characters to write their laws and govern the people, and that each monarchy muſt have invented ſome of its own. It was not neceſſary for this purpoſe that they ſhould communicate with each other. Do we not often ſee new inventions appear, almoſt at the ſame time, in different parts of Europe?

As for the perpetuity of trades, it never took place in China. On the contrary, there are very few Chineſe who like to learn the trades of their fathers, and never any thing but neceſſity conſtrains them to it. As ſoon as they are maſters of a little money, they commence merchants, and ſome of them even attempt to become petty mandarins.

Neither ought the metempſychoſis to enter into the parallel, ſince it is a doctrine of later times, which has always been unknown in China; and when attempts have been made to introduce it, it has conſtantly been rejected and anathematiſed, as a kind of peſtilence imported from the Indies. The learned Chineſe have wrote numberleſs books againſt the abettors of this doctrine, which however has ſpread conſiderably, eſpecially among the vulgar. We every where ſee nothing but bonzes and pagods, which the preſent emperor has multiplied ſtill more than his predeceſſors.

Let us proceed to the ſlaves or tribes ſaid to be at China. The following are the only circumſtances which could give riſe to this error.

There are in China perſons who are infamous, not originally, but by the profeſſion they exerciſe. Theſe

Theſe cannot be received as mandarins, and the people contract no alliances with them; ſuch are the comedians who play upon the public theatres; the miniſters of debauchery; the corrupters of youth; jailors; and thoſe who in courts baſtinade criminals, when the ſentence of the judge orders it. Theſe people are not particular cantons. 'Tis miſery, and not birth, which engages them in theſe ſhameful profeſſions, and their deſcendants may forſake them, when they have wherewithal to live honourably.

There is ſtill another kind of infamous people, whom they call To-min. Theſe are only found in the province of Tchekiang, eſpecially in the town of Chao-hiing, where they are obliged to live in a ſtreet by themſelves. They are only permitted to carry on the loweſt and moſt ignoble kind of buſineſs, ſuch as that of ſelling frogs and ſugar'd cakes to children, and playing on the trumpet before the dead, when they are carried to the grave. They are precluded from going to examinations, in order to take any higher degrees. When hard taſks are impoſed on the people of the town, they make theſe poor creatures perform them, becauſe every one has a right to uſe them ill with impunity. None of the reſt of the people contract alliances with them. Their wives have particular marks on their ſtalls to diſtinguiſh them from others. They are the only perſons who treat of marriages, and have acceſs to the ladies who have either ſons or daughters to diſpoſe of in marriage. They accompany the ſpouſe when ſhe goes to the huſband's houſe. On this occaſion they gain more or leſs in proportion to their dexterity in concealing from the two parties (who never ſee each other till the wedding-day) theſe faults which are not perceived at firſt ſight.

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'Tis true, that in all this there is ſome appearance of ſlavery, and people have been ſo much the more eaſily deceived in this reſpect, becauſe the Chriſtians of that city will not admit to baptiſm the To-min, whom they look upon as an infamous ſet of people, and with whom they will have no converſation. However, there is no abſolute ſlavery in this, if we will but be at the pains to examine into the origin of this matter; for all agree, and even the inhabitants of the town of Koo-hing, that theſe To-min are the deſcendants of the principal nobility who lived near the end of the dynaſty of the Songs, whom the Guers deſtroy'd; and becauſe theſe nobility gave the conquerors the greateſt trouble, and refus'd ſubjection, ſuch of them as ſurvived the ſlaughter were condemn'd to live in Chao-hing, and in the mortifying ſtate in which they have remained ſince the beginning of the reign of Yong-tching, who in a declaration which he made againſt ſo odious a ſtatute, decreed, that the To-min ſhould be looked upon as his other ſubjects; that they might be examined and take degrees, in order to enjoy places, if any of them were capable of ſo doing.

This order was publiſhed every where, and met with no oppoſition except from the literati of Chao-hing, who cruelly made a part of their glory to conſiſt in the oppreſſion of theſe miſerable creatures. They oppoſed the favour which was to be ſhewn them, and went in a tumultuous manner to make their complaints to the governor of the town, who found himſelf in great perplexity; for when there is a mutiny among the people, the governor is ſure to be diveſted of his authority, as a man who wants abilities to govern. He was upon his guard, however, and hit upon a ſtratagem which ſucceeded. He ſummoned the chiefs of the To-min before

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his tribunal, and in magnificent terms repreſented to them the clemency of the emperor, and then added of his own accord, that there were conditions annexed to this bounty, the firſt of which was, that they ſhould no longer exerciſe their ordinary profeſſion. Upon this the poor creatures cried out, that in order to honour them they wanted to make them die of hunger; ſince they had no other means of ſubſiſting. Difficulties were ſtarted on each ſide, and both ſeparated without coming to any concluſion. After this the richer ſort of the To-min quitted Chao-hing, and ſettled elſewhere. Some of them came to Peking and bore offices. The reſt gradually delivered themſelves from this ſlavery.

Another claſs of people, whom they call Kankia, is not much leſs contemptible. Theſe are the men who from the provinces bring to the capital, barks loaded with rice for the imperial magazines. The emperors Yuen firſt made this canal to tranſport rice and other things by water for the ſervice of the court. They looked upon the management of theſe barks as a hard and laborious employment, and therefore ſubjected thoſe to it, who for perſonal crimes had been condemn'd to baniſhment. Some were made captains of the barks, and others common ſailors. They put them into theſe barks with their whole families, and they have no other houſe, whether the bark ſails or lies at anchor. They are furniſhed with rice and every thing neceſſary for their ſubſiſtence. Many of them became rich, becauſe without paying either freight or duty, they put into their barks a great many commodities on their own account which they ſold at Peking. This practice laſted till it was prohibited to take on board, either for themſelves or others, above an hundred weight, the cuſtom of

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which they paid three or four times before they arrived at Peking. Thus the favour granted to them as well as the others, of being examined, coſts them dear, becauſe being poorer than before, they cannot ſupport their children till they obtain ſome degree.

This is, no doubt, what has given occaſion to ſay that there were claſſes of ſlaves in China: but if it was ſo, we might in like manner ſay that perſons condemned to the gallies, or to exile, conſtitute particular bodies of ſlaves. The reſt of the Chineſe have always been divided into men of letters, ſoldiers, merchants, and tradeſmen, as in other countries.

We now come to conſider the feaſt of lanthorns, ſo famous in China, and which may be compared with that held at Sais, from which it ſeems to have derived its origin; for the Chineſe feaſt is much more recent, at leaſt in point of fame, than that of Egypt recorded by Herodotus. The feaſt of lanthorns was inſtituted to congratulate the emperors, and afford the people a ſpectacle in the beginning of each year. A Chineſe author ſpeaks of it in the following manner:

Under the emperor Youi-tong of the dynaſty of Tang, a certain man whoſe name was Poto aſk'd leave to light a hundred thouſand lanthorns in the night, on the 15th of the firſt moon. The emperor came out of his palace to be witneſs to the ſpectacle; and that the people might have the ſame diverſion, he ordered that the ports ſhould not be ſhut the whole night, and declared that every one might walk thro' all the ſtreets without any fear of being arreſted. In the ſame book it is ſaid, that in the Year of Chriſt 950, the empire being in a profound peace and the crop plentiful, the emperor decreed that the feaſt ſhould laſt till the 18th

18th of the ſame month, in order to divert the literati and the people; but after him theſe diverſions were reduced to three days. This feaſt is accompanied with ſeveral pieces of fire-works.

The ſame author adds, that under the dynaſty of the Ycheou, they lighted lamps at the ſacrifices offered to the Chan-bi, and that in the dynaſty of Han when the ſect of To had penetrated into the palace of the emperor, this prince ordered lanthorns to be lighted, to render it more famous.

There is another book which ſays, that under the dynaſty of the Tcheou, which laſted more than eight centuries, an emperor whoſe name is not mentioned, on the 13th of the firſt moon permitted people to come abroad into the ſtreets in the night; that is to ſay, continues the author, they lighted lanthorns.

This is all we find concerning the feaſt of lanthorns. Tho' it is very old at China, it nevertheleſs appears that it has not been celebrated under Youi-tſong. Let the world after this judge whether the Chineſe or Egyptians had this feaſt firſt.

As for the other reſemblances found between the two nations; ſuch as their inviolable attachment to ancient cuſtoms, the reſpect paid to parents, the laws, and old people, the love of arts and ſciences; we may reaſonably think of them in the following manner:

Before the diſperſion of the nations, the three ſons of Noah, Shem, Ham, and Japheth, had learnt from their father, at leaſt by verbal inſtruction, what related to the ſciences, and the doctrine of morals, not to mention the knowledge they might receive before the deluge from thoſe who were elder, ſince they were married before they entered into the ark. Noah, no doubt, continued

tinued to instruct them. If he had inclined to favour one more than another, he would not have made choice of Cham, that wicked and accursed son from whom the Egyptians sprung, but rather of Shem and Japheth, who were blessed of the Lord. This last and his descendants soon forgot the instructions they received; but it was not so with the descendants of Shem who peopled China. They soon formed a great empire, which they attempted to govern as if it had been a single family. This was the means of perpetuating the important rules relating to morality and the other sciences, which they had received from their ancestors.

The Egyptians were also among the first, or if we can believe them, absolutely the first who formed an empire and cultivated the sciences. They succeeded better than the Chinese, because, perhaps, they had finer geniuses and greater application to study. But after all, it may be said, that the Egyptians and Chinese, without having any communication since their separation, resemble each other in a great many things, each having improved their stock drawn from the same source, according to their diversity of genius, which is generally very different among brothers, and still more among their descendants.

But it is astonishing that people should compare the Chinese with the Egyptians, in point of their respect to their parents and old people. These last must therefore have had a great horror at offences committed against their parents. The difference at present between these two nations, is, that in one this love of parents is almost extinct, whereas in the other it subsists in full force. What is now become of the Egyptians? Where are their laws, their sciences, and customs? Nothing

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now remains of their grandeur, but ſome ruins and ſome ſhattered pillars with their inſcriptions. Their conquerors have deſtroyed every thing, becauſe their kingdom was neither large nor populous enough to ſtop the courſe of their conqueſts.

China, for a quite contrary reaſon, being ſeveral times conquered, has reduced its conquerors, by ſubjecting them to its own cuſtoms, and has ſo changed them, that in a ſhort time they were no longer known for ſtrangers. The conquerors of this nation have never been able to alter either its character or language. They have not ſo much as had it in their power to introduce their own languages into the cities where they held their courts. In a word, their deſcendants are become Chineſe.

The dynaſties of the Kin and the Yuen are ſenſible proofs of this, which is alſo confirmed by the Tartarian Mantcheous who are ſtill upon the throne. They have only been able to change the form of the habits, and make their ſubjects cut off their hair. Every thing elſe ſubſiſts in its former ſtate, and tho' it is not much above a hundred years ſince they became maſters of China, they are already Chineſe in their morals, cuſtoms and appearances. Nothing is ſpoken but Chineſe in Peking, and in the houſes of the Mantechous. They are even obliged to ſend their children to ſchool to learn to read and write the Tartar language, that they may have places in the judicatories where both languages are uſed; and in the provinces no one can ſpeak the Mantecheu language.

But from which of the ſons of Shem did the Chineſe derive their origin? 'Tis highly probable that it was from Jectan, the younger brother of Phaleg, both the ſons of Heber. This opinion is ſupported by the following reaſons.

Firſt, the ſcripture after the enumeration of the thirteen children of Jectan, ſays * "And their "dwelling was from Meſha, as thou goeſt unto Se- "phar, a mountain of the eaſt." The country which they inhabited extended from the ſkirts of Meſha as far as Sephar, which is a mountain lying in the eaſt. Mount Sephar is in Arabia, as is generally granted. It is by no means one of theſe mountains which form mount Imaus, whoſe ſouthern extremity in the Thibet is called Cantiſſas. Another part whence Ganges takes its ſource is called Lanquer. The northern parts as far as Tartary are called Belgians, and at preſent Althai. Theſe are the paſſages to China, which were not known to Jectan. Theſe names are poſterior to thoſe who firſt inhabited the mountains.

The ſecond reaſon is, that the emperor Yao is alſo by the Chineſe called Yao-tang, a name which very much reſembles Jectan, by whom, or his children, China moſt certainly was peopled.

But from which ever of the ſons of Shem the Chineſe are deſcended, it is plain that on entering China, they ſhut the doors behind them, and have ever ſince been very careful not to open them, except to foreign ambaſſadors. It is ſurpriſing that their neighbours on the eaſt from Thibet in going north as far as Chamo, who are alſo the deſcendants of Shem, ſhould be ſo different from the Chineſe in diſpoſitions, language, features of the face, and ſhape of the body.

The Tartars are brutal, ignorant and deceitful, three very bad qualities, but rare among the Chineſe. When any of them come to Peking, if a perſon aſks the Chineſe whence this difference proceeds, they anſwer chont-ton cache; that is, from fire and

* Gen. x. 30.

and water, or from the nature of the country which produces this change both in the body and mind of its inhabitants.

We ſhall now ſpeak of the famines ſo frequent at China. How can it be, ſome may ſay, that a laborious, ſober, and induſtrious people, living in the moſt beautiful and fertile country in the world, and governed by the wiſeſt princes, ſhould be ſo often ſubject to famines, while we ſee barren countries inhabited by people who want many of theſe advantages, which rarely or never feel the ſhocks of famine?

To anſwer this objection, it will be ſufficient to make the following obſervations. In a time of famine China can receive no aſſiſtance from her neighbours, but is on the contrary obliged to ſupply them. Beginning at the province of Yun-nan, and paſſing to the north thro' the provinces of Koer-tcheou, Se-tchuen, and Chenſi, as far as the great wall, we find nothing but dreadful mountains, inhabited for the moſt part by ſavages, who have their own chiefs and laws, and ſpeak a different language. They often make incurſions into the low countries, and lay vaſt tracks of it deſolate, but have never yet been ſubdued.

To the north of China are the Mongals, a nation indeed ſubjected to China, but naturally ſo lazy, that they only ſow millet for their own ſupport. Their flocks ſupply them with their other food.

To the north-eaſt is the province of Leao-tong. It is very fertile, but ſo far diſtant from Peking, that its produce cannot be eaſily tranſported thither, and this is even impracticable in the winter ſeaſon.

Corea furniſhes no grains to China. The provinces of Kiang-naro and Tche-kiang have the ſea

on the eaſt, and are three or four days journey diſtant from Japan. However, none of their veſſels go thither for proviſions, either becauſe Japan is already ſo populous that it has none to ſpare, or becauſe after its gates are ſhut, they would be expoſed to too many dangers.

The province of Foukien on the ſouth, borders on the ſea, and oppoſite to it is the iſland of Formoſa, of which only a part belongs to China, which muſt ſupply it with proviſions, when it ſuffers famine.

The province of Quang-tong has nothing on the ſouth, but the ſea, and uncultivated land; ſo that in running thro' all the provinces of China, we muſt ſee, that ſhe herſelf is obliged to ſupport her numberleſs crowd of inhabitants.

When the crop fails in one province, or one part of a province, by drought, or ſome ſudden inundation, the great mandarins have recourſe to the public granaries, but finding them empty, they draw informations, tho' very unwillingly, becauſe they carry bad news. Theſe informations or memorials, when ſent to Peking, paſs thro' many hands, ſo that they do not reach the emperor till after ſome days. He then orders the grandees to aſſemble, and deliberate on the means of relieving the miſery of the diſtreſſed. On this occaſion he makes very fine ſpeeches, after which the court comes to a reſolution. They nominate mandarins to go to the relief of the afflicted provinces. If diſpatch is required they furniſh them with poſt-horſes and bear their expences. If they get no horſes, they go at their own expence, in which caſe they demand time to prepare for their departure. After a great many delays, they ſet out; but the diſtreſſed may die of hunger before they receive any ſuccour.

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If the public granaries are often empty, this happens, becauſe the great mandarins who have the care of them, entruſt the keeping of them to true harpies, who are like hungry wolves guarding a ſheep-fold. Theſe villains uſe a thouſand artifices to rob and plunder, by which means a famine happens. The public granaries are almoſt entirely pillaged. The mandarins and ſubaltern officers are puniſhed; but this does not remedy the preſent evil. The people wait hope, and die without relief.

The ſecond cauſe of famine is, that they do not manage their grains well, but conſume great quantities of them in making wine, aqua-vitæ and arrack.

The famine is not the only inconveniency attending this preparation of arrack. It is alſo the moſt common cauſe of the frequent conflagrations which happen in the cities of china, and eſpecially in Peking. The Chineſe neither drink wine nor arrack, till they have warmed them. They uſe theſe liquors, eſpecially at night when going to bed, eſpecially merchants, tradeſmen, and ſoldiers. Every one has in his bed-chamber a furnace with a fire of charcoal, with which they boil their rice and tea, and at the ſame warm the alcove of bricks in which they lie. On the ſame furnace they warm this ſort of drink, eating ſalted herbs with it, ſo that they get themſelves intoxicated at a ſmall expence. If thro' careleſſneſs, or intoxication, they let any of the arrack fall on the fire, the flame ſoon reaches the roof, which is only made of oſier matts, or of paper, and is no more than three or four feet higher than a man's head. On this occaſion the whole chamber is inſtantly on fire; and becauſe the ſhops where the merchants lie, and moſt of the other houſes are not ſeparated

from each other by thick walls; and becauſe the beams are often faſtened together, the fire ſpreads with rapidity, and does great damage before it can be extinguiſhed.

CHAP. VI.

Character of the Chiriguanes, diſpoſition of their towns, their ornaments, their apparel, marriages, cuſtoms at the birth of their children, their ceremonies with the dead, their opinion concerning the ſtate of the ſoul, when ſeparated from the body.

THE towns of the people of South America are diſpoſed in form of a circle, in the center of which is the capital. They are very ſubject to get intoxicated by a very ſtrong liquor which their women prepare. They acknowledge no deity. When they are in their own houſes they often go quite naked. They have, however, coverings of leather, which they moſt generally carry on their arms. When they travel they put on this covering to defend themſelves from thorns, of which their foreſts are full.

Their women only cover themſelves with ſome old rags, which hang down from their waſte to their knees. Their hair is long and beautiful. On their heads they wear a kind of crown, which has a pretty good air. They generally paint their faces of a fire colour, and all the reſt of their bodies, when there is any feaſt where they are to get drunk. The men only mark ſome lines of the ſame

ſame colour on their faces, to which they add ſome large black ſtrokes. When both men and women are painted in this manner they have a terrible air. The women pierce their inferior lip, and hang to it a ſmall cylinder of braſs, ſilver, or tranſparent reſin.

Boys and girls have not the leaſt clothing till they are twelve years old, and this cuſtom is univerſally eſtabliſhed thro' all South-America. Their arms are ſpears, bows and arrows, which the women manage as dexterouſly as the men.

Their marriages, if they may be ſo call'd, have nothing certain. A huſband quits his wife when he pleaſes. Hence it is that they have children in almoſt all the towns. In ſome they marry for two years, after which they go and marry in another.

The pretended marriage is made without much ceremony. When a man wants a woman for his wife, he endeavours to gain her affection, he regales her for ſome time with fruits of his own growth, and with fowls he has taken in hunting, after which he lays a bundle of wood before her door. If ſhe takes it in, the marriage is concluded, but if ſhe does not, he muſt ſeek for another.

They have no other phyſicians than one or two of the oldeſt men in the town. The whole knowledge of theſe pretended phyſicians conſiſts in whiſtling round the patient to baniſh the diſeaſe.

When a girl arrives at a certain age they oblige her to remain in her hamock, which they ſuſpend at the end of the cottage. The ſecond month they lower the hamock half way, and the third month old women enter the cottage armed with batons. They run up and down ſtriking every thing they find, and purſuing, as they ſay, the ſnake which ſtung the girl, till at laſt one of them

concludes this farce by ſaying that ſhe has killed the ſnake.

When a woman brings a child into the world, it is cuſtomary for the huſband to obſerve ſo rigid an abſtinence for three or four days, that he is not ſo much as permitted to drink. They do not abandon their dead, as the other barbarous nations do. When any of their family dies they put him in an earthen veſſel proportioned to the bulk of the carcaſs, and inter him near their own cottage. For this reaſon, all round theſe cottages we ſee heaps of earth raiſed in proportion to the number of veſſels which have been interr'd in them.

The women bewail the dead thrice a day, in the morning, at noon, and in the evening. This ceremony laſts for ſeveral months, or as long as they pleaſe. This ſort of lamentation begins as ſoon as the diſeaſe is thought dangerous. Three or four women ſurround the patient's bed, and utter the moſt dreadful cries and howlings. The patient would rather have his head broke than not be bewailed in this manner; for if they failed in performing this ceremony, it would be an infallible ſign that he is not beloved. They believe the immortality of the ſoul, without knowing what becomes of it after its ſeparation from the body. They imagine that it wanders up and down in the woods round their towns, where they go to ſeek it every morning, till not finding it they deſiſt from their uſeleſs labour.

They draw bad omens from the ſong of certain birds, eſpecially of one of a cineritious colour, which is no larger than a ſparrow. If, after they are ſet out on a journey, they hear it ſing, they go no farther, but return home directly.

The magicians and ſorcerers who make fortunes among the other ſavages, are among them abhor'd and look'd upon as publick peſts.

CHAP.

CHAP. VII.

Of the isle of Tsong-ming; the fruits which grow in it; the method of cultivating the rice; the crop of cotton, how it is prepared; a particular kind of earth whence they take their salt; the manner of obtaining this salt from the earth; the character of these islanders.

THE island of Tsong-ming in the province of Nangking, from which it is only separated towards the west by a branch of the sea, not more than five or six leagues broad, is situated in the thirty-third degree of north latitude.

The manner in which this island began to be peopled, is not very much to its honour. It was formerly a savage and desart country, all covered with briars. They sent thither all the robbers and profligate wretches, of whom they wanted to purge the empire. The first people sent thither were obliged either to die of hunger, or to draw their aliments from the bosom of the earth. The desire of living rendered them active and industrious. They improved this uncultivated land, tore up the useless plants, and sowing the few grains they had brought with them, they were not long before they reaped the fruit of their labours. In a few years a great part of the ground which they had cultivated became so fertile, that it furnished them with plenty of necessaries.

This induced some Chinese families, who could hardly subsist on the continent, to come to a country, the culture of which would release them from the extreme indigence in which they were. They there-

therefore tranſported themſelves into this iſland, and divided the whole ground among them; but finding that they could not improve it all, they ſent for other families from the continent. They granted them for ever a part of the ground, on condition, however, that they ſhould every year pay them in different commodities, a rent proportioned to their crop.

The iſland of Tſong-ming was not then ſo large as it is now. In proceſs of time ſeveral ſmall iſlands being united to it, form'd one continued track about twenty leagues long, and five or ſix broad.

There is but one town in the whole country, which is of the third order, when compared with the other towns of the empire. The country is divided by an infinite number of canals, which receive the rain-water, and convey it to the ſea. The land is even, and free from mountains. The canals are fenced by very high banks, to ſecure the fields againſt inundations.

The air of the country is temperate and wholſome, tho' the rains, which fall plentifully, eſpecially in the ſpring and middle of the ſummer, render it very moiſt. The exceſſive cold does not laſt there above twelve days, but the intenſe heat continues two months, and would be intolerable, if it was not moderated by rains, accompanied with thunder and lightning. Twice or thrice a year there come terrible hurricanes from the north-eaſt, which overthrow every thing. In other reſpects the country is very agreeable. The multitude of houſes ſcatter'd up and down the fields preſents us with a moſt charming ſpectacle. Here and there we ſee large villages full of the ſhops of merchants, who enjoy abundance of every thing.

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Beſides, between every village there are as many houſes ſcatter'd up and down, as there are families employed at work. The high roads, which are narrow, becauſe the inhabitants are ſparing of their ground, are full of ſmall ſhops on each ſide, to ſupply travellers with neceſſaries. Strangers are ready to imagine, that almoſt all the beſt cultivated parts of the iſland make but one continued city of an immenſe extent.

But what appears aſtoniſhing is, how the numberleſs multitude of the inhabitants of this iſland ſubſiſts. Geeſe, ducks and fowls, are the moſt common food. In winter the ſea-coaſts are all cover'd with wild ducks, which they take in gins. They have a large quantity of oxen, which only ſerve for labour, and are ſo tractable, that a child can lead them where he pleaſes.

The ſoil produces few fruits, and of theſe the beſt is the ſetſe, which is as large as our apples. We there find water melons, which are red, and full of a freſh and ſweet water. The ſoil produces no vines, but the whole iſland has plenty of wine. The inhabitants have found the ſecret of making very good wine of a kind of rice different from that which they uſe for food. They make this wine in the following manner: They leave the rice to ſoak in water, with ſome other ingredients, for twenty, and ſometimes for thirty days; after which they boil the whole. When it is fermented, it is covered with a volatile froth, very like that of our new wines. Under this froth is a very pure wine, which when rack'd, is poured into well varniſhed earthen veſſels. Of the lye they make a brandy almoſt as ſtrong as that of France.

Tho' the ſituation of the iſland would make ſtrangers think that almoſt all its inhabitants were fiſhermen,

fiſhermen, yet there are very few of them ſuch by profeſſion. They have all kinds of fiſh, and an incredible number of ſmall veſſels come loaded with them at ſeveral ſeaſons of the year.

One of the fiſh which the Chineſe moſt eſteem, and which weighs about forty pounds, is by them called Encunvaſſe. They call it ſo, becauſe it has on its back, belly, and two ſides, a range of cutting ſcales, placed in a right line, and laid over each other, almoſt like the tiles of a houſe. It is an excellent fiſh, of a whitiſh colour, and in taſte reſembles veal.

When the weather is ſerene, they catch another very delicious fiſh, which they call the meal-fiſh, on account of its extreme whiteneſs. Its black eye-balls ſeem to be ſet in two ſmall and ſhining circles of ſilver.

This fiſhing is hardly over till large veſſels come from the province of Tche-kiang, loaded with another kind of freſh fiſh, which they call the yellow fiſh on account of its colour; it reſembles the cod of Newfoundland.

However great the fiſh-trade of the iſland is, it would not be ſufficient for the ſupport of the inhabitants, unleſs a prodigious quantity of ſalt-fiſh were brought from the ſea-coaſts, between the mouth of the Kiang, and the province of Chantong.

The ſoil is not the ſame in all the iſland. There are three kinds of it very different from each other. The firſt lies towards the north, and is quite uncultivated. The ſhrubs, which grow there ſpontaneouſly, are of conſiderable value: ſome of them are uſed in building the country-houſes, and the reſt ſerves as firing, not only to all the country, but

but alſo to ſome of the coaſts adjacent to the continent.

The ſecond kind of ſoil is that which from the former extends to the ſea on the ſouth. The iſlanders in this have every year two crops; the one of grain, which in general is in the month of May; the other is of rice or cotton, the former in September, and the latter a little after. Their grains are wheat, barley, and a kind of bearded corn, which, tho' like rye, is nevertheleſs of a different nature.

The culture of the rice is the moſt troubleſome. From the beginning of June they cover their fields with the water of the canals, which are very numerous. For this purpoſe they uſe certain machines like thoſe employed in Europe for draining marſhy grounds, or emptying ponds. They till the land three different times ſucceſſively, with their feet conſtantly under water. Then they break the clods of earth with a mattock; and by a wooden machine, on which a man ſtands upright, and which is drawn by an ox, they level the ground ſo as to make the water at an equal height in all parts of it. Then they pull up the rice, which a month before they had ſown very thick in another canton, and tranſplant it more regularly into the ground thus prepared. When the rice begins to appear, they are very careful to pull up the weeds, which might choak it. In great droughts they endeavour that their fields ſhould be covered with the waters of the ſea, which fills their canals. What is ſurpriſing is, that theſe waters which are ſalt all the reſt of the year, become ſweet and proper to fertiliſe the land at the very time when the inhabitants intend to till it.

Their

Their method of clearing the rice of its huſks, is very ſingular. It grows with a hard and rough ſkin, like that of barley. When it is in this ſtate, they boil it gently in water, dry it in the ſun, and unhuſk it at ſeveral times. The firſt time they take off the coarſe ſkin, and the ſecond the red pellicle, which differs in colour according to the kind of rice, of which there are more than thirty ſorts. Their rice is not farinacious and broken, like that of Europe, but very beautiful and whole.

The crop of cotton requires leſs trouble and fatigue than that of rice. The very day they cut down their corn, they ſow the cotton in the ſame field, and turn the ſurface of the earth over it with a rake. When this earth is moiſtened by the rain or dew, there gradually riſes a ſhrub about two feet high. The flowers which appear about the beginning or middle of Auguſt, are generally yellow, and ſometimes red. The flower is ſucceeded by a bud, which is of the form of a gooſeberry, and as large as a nut. When this bud is forty days old, it opens of itſelf; and being ſplit in three different parts, contains three ſmall parcels of cotton extremely white, and of the ſame form with the cods of ſilk-worms. Theſe parcels are fix'd to the bottom of the open huſk, and contain the ſeed for the following year. It is then time to reap the harveſt, but when the weather is good, they leave the fruit expoſed to the ſun for two or three days, becauſe the heat inflates it, and renders it more valuable.

As all the fibres of the cotton are ſtrongly adherent to the ſeeds which they include, the natives uſe a wheel to ſeparate them. This wheel has two very ſmooth rollers, the one of wood and the other of iron, about a foot long and an inch thick. They are ſo applied to each other, that there appears

no

no diſtance between them. While one hand moves the firſt of theſe rollers, and the foot the ſecond, the other hand applies the cotton to them, which is ſeparated by this motion, and paſſes from one ſide, while the ſeed remains bare on the other. They then card and ſpin the cotton, in order to make ſtuffs of it.

There is a third kind of ſoil, which, tho' apparently barren, is yet more profitable than the reſt. It is a kind of pinguous earth meaſured out in ſeveral cantons of the northern part of the iſland. They obtain ſuch a quantity of ſalt from it, as not only ſupplies the whole iſland, but alſo the inhabitants of the continent, who come for it ſecretly in the night time. They purchaſe it at a ſmall price, on account of the riſques they run; for if they are caught by the mandarins, their boats and ſalts are confiſcated, and themſelves condemned to work in the gallies four or five years.

It is not eaſy to explain how certain portions of earth diſperſed thro' a whole country, ſhould be ſo full of ſalt as not to produce a ſingle herb, while other portions juſt contiguous to them, produce abundance of corn and cotton. It often happens that theſe laſt portions are filled with ſalt, while the former become proper to be ſown with cotton or corn. This is one of the ſecrets of nature, which the human mind in vain attempts to penetrate.

They obtain the ſalt from this earth in the following manner. They firſt make the earth ſmooth as a glaſs, and then raiſe it in ſloping ridges, in order to hinder the water from remaining on it. When the ſun has dried the ſurface of it, and when it appears all white with the particles of ſalt, they raiſe it in ſmall heaps, which they beat cloſe on all ſides, to hinder the rain from entering into them.

Then

Then they ſpread this earth upon large planks with a gentle declivity, and which have lips three or four inches high. Then they pour a certain quantity of freſh water upon it, which penetrating thro' the whole carries along with it all the particles of the ſalt into a large earthen veſſel, into which it falls drop by drop, thro' a ſmall canal made on purpoſe.

The earth thus purg'd does not, on that account, become uſeleſs. They put it by, and when it is dry they reduce it to powder, which they ſpread on the ground whence they took it. In ſeven or eight days it is mixed with an infinite number of particles of ſalt, which they collect in the ſame manner.

While the men are thus at work in the fields, the women and children are employed in cottages built on the ſpot, in boiling the ſalt waters. They put them into very large and deep iron baſons, which are placed upon an earthen furnace ſo prepared, that the flame may be equally diſtributed to all the baſons, and exhaled in ſmoke thro' a long vent built like a chimney at the extremity of the furnace. When theſe waters have boiled ſome time, they are inſpiſſated, and gradually changed into a very white ſalt, which they ſtir conſtantly with an iron ſpatula, till it is entirely dry.

CHAP.

CHAP. VIII.

Of the arts and the medicine of the Indians.

NO nation equals the Indians in what relates to the mechanic arts. Their tradeſmen have a ſurpriſing ſkill and dexterity, and are particularly excellent at making ſtuffs ſo fine, that very broad and long pieces of them can be drawn thro' an ordinary gold ring.

If we tear a piece of muſlin and give it to be mended by the Indian fine-drawers, it is impoſſible to diſcover where it has been join'd. They ſo dexterouſly unite the pieces of an earthen or porcelain veſſel, that we cannot perceive where they have been broken.

The goldſmiths work in filigrin with incredible neatneſs, and perfectly imitate the European works, tho' their forge and other utenſils for that purpoſe, coſt them no more than a crown.

The loom which the weavers uſe coſts no more, and with this loom we may ſee them at work in their courts, or on the road ſides, weaving thoſe beautiful ſtuffs ſo much ſought after by all the world.

They have no need of wine to make brandy; for they make it of ſyrup, ſugar, ſome barks, and ſome roots. This brandy is as ſtrong, and burns better than that of Europe.

They paint flowers, and gild very well upon glaſs. We cannot help admiring ſome of their veſſels proper for cooling water, and which are no thicker than two leaves of paper paſted together.

The Indian boat-men row in a different manner from the Europeans. They tug at the oar with their feet, while their hands ſerve them as a rudder.

The liquor which their dyers uſe loſes nothing of its colour in the lie.

The European labourers prick their oxen with goads, in order to make them mend their pace, whereas the Indians only twiſt their tails. Theſe animals are ſo tractable that they are taught to lie down and riſe up, in order to receive or depoſite burdens.

In the Indies they uſe a hand-mill which coſts no more than ſixpence, for breaking the ſugar-canes.

A miller forms his ſtone himſelf with lack and emril. A maſon paves the place where the meal is received, with a kind of cement which he makes of brick-duſt and lime; and this pavement ſeems to be one ſingle ſtone much harder than freeſtone.

They make fire-vents ſometimes forty feet long, eight broad, and four or five inches thick, which they fix to the wall only on one ſide, without any other ſupport.

It is with a line of ſeveral knots that their pilots make their ſoundings. They put one end of this between their teeth, and by means of a piece of wood fixed to the cord they eaſily obſerve the tail of the leſſer bear, which is commonly called the north or polar ſtar.

The lime is generally made with ſea-ſhells. That prepared with ſnail-ſnails is uſed in whitening the houſes; and that prepared of ſtone is chew'd with beet leaves. Some of the Indians uſe a quantity as large as an egg of this every day.

The butter is made in the firſt veſſel that comes to hand. They ſplit a piece of wood into four, and extend it in proportion to the veſſel where the milk

is, after which they turn it in different directions by means of a cord fix'd to it: and in a ſhort time the butter is made.

The people who ſell the butter have the art of making it paſs for freſh, when it is old and ſmells rancid. For this purpoſe they melt it, throw ſour and coagulated milk into it, and eight hours after take it out in lumps, which they paſs thro' a linen cloth.

The chymiſts employ the firſt pot they find, to revivify cinnabar and other preparations of mercury, which they do in a very ſimple manner. They eaſily reduce all metals into powder, and greatly eſteem talc and yellow copper, which, as they ſay, conſume the moſt viſcid humours, and remove the greateſt obſtructions.

The phyſicians are more reſerved than thoſe of Europe in the uſe of ſulphur, which they correct with butter. They alſo make a broth with long pepper, and boil the Indian pine apples in milk. They with ſucceſs employ againſt all fevers, henbane corrected in cows urine, and orpiment corrected in lemon juice.

A phyſician is not admitted to preſcribe to a patient, till he finds out his diſorder, and the humour which predominates in him, which he eaſily knows by feeling the pulſe.

The principal diſeaſes which reign in the Indies are firſt, the cholera morbus. The method employed for the cure of this diſorder conſiſts in keeping all drink from the patient, aud burning the ſoals of his feet. 2dly, The lethargy, which they cure by putting pepper beat with vinegar into the eyes. 3dly, An obſtruction of the ſpleen, which has no other ſpecific but the practice of the Indian devotees. They make a ſmall inciſion over the ſpleen, and then inſert a long needle between the fleſh and

ſkin. From this inciſion, by ſucking thro' a horn pipe, they obtain a certain pinguous matter which reſembles pus.

Moſt of their phyſicians have a cuſtom of throwing a drop of oil into the patient's urine. If it ſpreads, they ſay that this is a mark that he is too hot internally, if on the contrary it remains whole, it is a ſign that he is defective in heat.

The common people have very ſimple remedies. For the megrim, they uſe the powder of the dried bark of the pomegranet pounded with four grains of pepper in the form of tobacco. For the common head-ach, they ſmell to a mixture of aromatic ſalt, quick lime and water. Theſe vertigos, which proceed from a cold and groſs blood, are cured by drinking wine in which ſome grains of incenſe have been ſteeped. For a deafneſs which proceeds from a redundancy of cold humours, they drop lemon juice into the ear. When the brain is loaded and obſtructed with phlegm, they ſmell to the powder of black cumin. For the tooth-ach, a paſte made of the crumbs of bread, and of the ſeeds of ſtramonia applied to the aggrieved tooth, numbs it ſo as to remove the pain. They order a perſon labouring under an hæmorrhage to ſmell to feverfeu or bruis'd worm-wood. For the heart-burn and ſpitting of blood, they cover a giramont (an Indian fruit of the form of a gourd and taſte of a citron) with a paſte which they bake in the oven, and drink the water which comes from it. For the flatulent and pituitous colic they give four ſpoonfuls of water, boil'd to two with aniſe and ginger. They alſo bruiſe a raw onion with ginger, and apply it to the part where they feel the pain. For the lientery they roaſt a head of garlick under the aſhes, and when going to bed put it into their mouths to ſuck out the juice of it. They uſe the juice of cucumber

leaves

leaves bruiſed for purging and vomiting. A difficulty of making water is cured by a ſpoonful of oil of olives well mixed with an equal quantity of water. For fluxes they roaſt ſome white cumin, and a little bruis'd ginger, which they ſwallow with ſugar. They cure the fevers which begin with ſhiverings, by making the patient take three large pills of ginger, cumin, and black pepper, before the paroxyſm. For tertian fevers they make him take for three days three ſpoonfuls of teucrium, or the greater germainder, with a little ſalt and ginger.

CHAP. IX.

The majeſty and energy of the language of the Guaranis; the character of that nation; a deſcription of the animals found in their country, and eſpecially of a ſingular inſect.

TO form a judgment of the majeſty and energy of the language of the Guaranis, a people of South-America, it is ſufficient to tell the reader, that every word of it is an exact definition, which explains the nature of the thing to be expreſſed, and conveys a clear and diſtinct idea of it. In point of nobility and harmony it yields to none of thoſe ſpoken in Europe; beſides it has many charms and delicacies; but they require a great many years application to become perfectly acquainted with them.

The nation of the Indian Guaranis is divided into thirty cantons, in which there are more than a hundred and fifty thouſand inhabitants.

This country is infeſted with wild beaſts, and eſpecially tygers. Here we find various ſorts of ſerpents, and an infinite number of inſects not known in Europe. Among theſe inſects, there is a particular one which the Spaniards call pique and the Indians tung. It is no longer than a ſmall flea, and inſinuates itſelf between the ſkin and the fleſh, eſpecially under the nails, and in parts where there is any callus. There it forms a neſt and leaves its eggs. If this neſt is not quickly diſlodged, it ſpreads itſelf on all ſides, and produces the moſt terrible effects in the part where it is lodg'd; ſo that a perſon finds himſelf all of a ſudden deprived of the uſe of his hands or feet, according to the part where the inſect is ſituated. The remedy is gradually to reach its ſeat with the point of a pin, and extract it entirely, otherwiſe there is danger of the wound's becoming putrid.

Birds are here very numerous, and widely different from thoſe of Europe. There are in this country more than twenty kinds of ſparrows, the largeſt of which is no bigger than the ſmalleſt of ours. Their note is nearly like that of the linnet. They are green and blue, and ſo eaſily tamed, that in eight days after they are taken, they come and perch on the finger of any one who calls them.

'Tis principally in the marſhes that we ſee birds of all kinds, which ſurprize by the variety of their colours, and the diverſity of their beaks, which are of a ſingular form. Birds of prey likewiſe abound here, and ſome of them are of an enormous ſize.

CHAP. X.

Of the pintade, whether it is different from the meleagride; of the tame and wild pintades.

THE pintade is that bird which the Romans called Afra avis, and which in Europe we indifferently call an African, Barbarian, Guinea, Numidian, Tunis, or Mauritanian hen, but moſt generally a pintade.

Among a conſiderable number of authors who have ſpoken of the pintade and meleagride; ſome, as Varro, Columella, and Pliny, have confounded and made only one ſpecies of them. Others, as Suetonius and Scaliger, have made two different ſpecies of them; with this difference, that Scaliger pretends to have Varro on his ſide of the queſtion.

We ſhall firſt give the paſſage of Varro on which this queſtion is founded. This author, in the 3d chapter of his book on agriculture, diſtinguiſhes three ſorts of different fowls, by as many diſtinguiſhing names. He calls the firſt Villatica, the ſecond Ruſtica, and the third Africana. In ſpeaking of this laſt ſpecies he expreſſes himſelf thus: "Gallinæ aliæ ſunt grandes, variæ, gibberæ, quas "meleagrides appellant Græci. Hæ noviſſimæ, "in triclinium ganearum introierunt e culinâ, "propter faſtidium hominum veneunt propter "penuriam magno."

The ſingle reading of this paſſage, ſhows that Varro could neither more clearly nor preciſely explain himſelf to evince, that the pintade and meleagride are of the ſame ſpecies. Scaliger has however

imagined that he found in it two distinct species, by supposing that there ought to be a full point after gibberæ, and that then we ought to read, "Quas meleagrides appellant Græci, hæ noviſſi-"mæ, &c." But besides, that this punctuation is only the invention of Scaliger, and no mark of it to be found in the different copies, it would make Varro fall into a palpable contradiction, because in this case, after having laid it down as a principle that there are three species of hens, he would add a fourth to them, which is absurd.

Let us now explain this passage of Varro. First then, Gallinæ sunt, says he, the pintade ought to be class'd under the genus of hens. It has all the attributes, and all the qualities of them, a crest, a beak, plumage, a roost, a set of eggs, and a great care of her young. In the second place, the differences of the pintade hens are very well described by Varro, in these words, "Grandes, variæ, gib-"beræ. Grandes, they are really larger than common fowl. Variæ, their plumage is all mottled; they are of two colours, some have black and white spots disposed in a rhomboidal form, and others are of a cineritious grey colour. Both kinds have their bellies, and the extremities of their wings, white. Gibberæ, their back rises in a bunch, and pretty naturally represents the back of a small tortoise. This bunch, however, is only formed by the position of their wings; for when the feathers are pulled off them, there is no longer any appearance of a bunch on their bodies. What makes the bunch appear more conspicuous, is that their tails are short and sunk downwards, and not elevated like those of common fowls.

This description which Varro gives of the pintade is just, but it is not complete. The pintade's neck is pretty short, slender, and slightly covered

covered with down. Its head is very ſingular; for it is not covered with feathers, but with a ſpongeous, rough, and wrinkled ſkin, of a blueiſh white colour, with a ſmall creſt, like a crown on the top. This creſt is half an inch high, and of a cartilaginous ſubſtance. From the inferior part of the head, which may properly be call'd the cheeks of the pintade, hangs on each ſide a red and fleſhy beard, of the ſame nature and colour with the creſt of cocks. In a word, its head is terminated by a beak, three times larger than that of common hens, very ſharp, hard, and of a beautiful red colour.

The pintade rooſts and ſits like common fowls. Its eggs are ſmaller, and leſs white. They are ſomewhat of a fleſh colour, and mark'd with black ſpecks. The pintades are with difficulty brought to lay in the hen-houſe. They ſearch for the thickeſt hedges or copſe, where they lay a hundred or a hundred and fifty eggs ſucceſſively, provided ſome are only left in the neſt. People do not generally permit the tame pintades to hatch their own eggs, becauſe the mothers do not ſit cloſe enough, and often forſake their chickens. The eggs are oftener hatch'd by Indian or common hens. Nothing is more beautiful than the young pintades; they reſemble ſmall partridges, and their red feet and beak, joined to their plumage, which is grey like that of a partridge, render them very agreeable.

The pintade is an extremely lively, reſtleſs, and turbulent fowl. It runs with extraordinary ſwiftneſs, almoſt like the quail or partridge, but cannot fly very high. It delights however to perch on trees, or the tops of houſes, where it remains all night, rather than in the hen-houſe. Its cry is harſh, diſagreeable, ſhrill, and almoſt continual.

Be-

Beſides, it is quarrelſome, and wants to be miſtreſs of the walk. The largeſt, and even the Indian hens, are obliged to yield to her. The hardneſs of her beak, and the agility of her motions, make her reſpected. Her method of fighting nearly reſembles that which Salluſt aſcribes to the Numidian cavalry. Their charges, ſays he, are raſh and precipitate; if they are reſiſted, they turn their backs, and immediately turn about abruptly. The pintades reſembling the place of their origin, have preſerv'd the Numidian genius. The Indian cocks, which are very large, flattering themſelves that they can eaſily beat the pintades, advance againſt them with pride and gravity; but the pintades defeat them by their marches and counter-marches; they hardly make ten turns, and give twenty blows, till they force their antagoniſts to retire.

The pintades are not natives of America, but come from Guinea. The Genoeſe brought them with the firſt negroes, which they were engaged to carry to the Caſtilians in 1508. The Spaniards have never thought of keeping them at home. They have left them to roam at pleaſure, in the woods and thickets, where they have become wild, and multiplied incredibly. We cannot walk in the Spaniſh territories, without finding prodigious flocks of them. Theſe are call'd wild pintades.

The wild pintades are reckon'd the moſt delicate food that can be ſet upon a table. Their fleſh is tender, and of a taſte ſurpaſſing that of pheaſants. The taſte of the tame pintades is not ſo fine, tho' it is better than that of other poultry.

After theſe diſquiſitions, we ſhall enquire, whether the pintade ought to be diſtinguiſhed from the meleagride. Suetonius is of this opinion, but his authority is of no importance, when compared with that of Varro, Columella, and Pliny. Theſe were

were profeſſed naturaliſts, whereas Suetonius conſidered chiefly the hiſtory and politics of courts.

The meleagride, ſay ſome, delights in marſhes; and is not the wild pintade found alſo in aqueous and marſhy places? If the meleagride takes little care of her young, which ſhe often abandons, is it not the ſame caſe with the pintade? But the pintade, ſay ſome, is larger and fatter than the meleagride. Some pintades are dry and lean, and ſome are larger than others. Is not this ſame diverſity found in ordinary fowls? Should we on this account eſtabliſh different ſpecies among them? It is ſaid by ſome, that the fleſhy and cartilaginous appendices, which hang from the cheeks of the pintades, are red; whereas the meleagrides have them blue. But let us conſider the head of the pintade, and a part of its neck, which are blue, and we ſhall ſee, that this pretended difference is only an error, and that, for want of attention, people have ſometimes confounded the bearded appendices with the ſkin, and ſometimes the ſkin with the appendices.

Beſides, when the pintades are young, theſe beards do not hang down ſufficiently to be well obſerv'd. We only at firſt ſee the blue ſkin at the inferior part of the head. When the pintades are old, the fleſhy beards aſſume a deep red colour, whereas the ſkin of the neck being more ſhrivell'd in the young, ſtrikes the eye more. 'Tis this change which has given riſe to the miſtake of the authors, who have wrote of the Numidian hen, and laid a foundation for the pretended difference between the appendices of the pintade and meleagride, of which two ſpecies have very improperly been made.

We ſhall now examine a paſſage of Pliny, which ſeems not to agree with that quoted from Varro.

This

This laſt, when ſpeaking of pintades, ſays; "Hæ noviſſimæ, in triclinium ganearum introi-"erunt e culina, propter faſtidium hominum ve-"neunt propter penuriam magno." It follows from theſe words, that the pintade meleagrides were ſometime before introduced into Rome; and that people who kept good tables, found nothing more proper to excite their appetites, which rendered them extremely dear. This is confirm'd in ſeveral places of the works of Horace, Juvenal, Petronius, and Martial.

Pliny ſays on the contrary, that they were very much ſought after at Rome, "propter ingratum "virus." We ought to conclude from theſe words, either that Pliny did not underſtand the propter faſtidium hominum of Varro; or that theſe words, "propter ingratum virus" have been foiſted in, and the text corrupted.

Varro and Pliny grant, that the pintade and meleagride are the ſame fowl; both agree, that they were very much ſought after by the Romans, that they were very dear in Italy, and accounted a delicacy at the beſt tables. But Varro pretends, that they were only ſought after by people who keep good tables, "propter faſtidium hominum," that is, to reliſh their appetite, and procure a ſtomach; and Pliny thinks, that they were rare, "propter in-"gratum virus." What relation is there here, or where is the conſequence drawn? Can food be dear, and much ſought after, for no other reaſon than that it is abominable and nauſeous?

CHAP.

CHAP. XI.

Rules obſerv'd by the Indians, in the adminiſtration of juſtice, qualities which the judge ought to have, what the duty of the pleaders is, maxims which ſerve as laws to the judges.

THE Indians have neither code nor record, nor any book in which thoſe laws are written, which they ought to obſerve in determining thoſe differences which happen in families. They have indeed the Vedam, which they look upon as a ſacred book; but it is not from it that they draw the maxims they uſe in regulating their judicial procedures. They have another book which they call Vichna-churam, which contains a great many fine ſentences, and ſome rules for the different tribes of the people. In this book is related the ingenious manner in which ſome of the ancients diſcovered truth, when people endeavoured to conceal her by various artifices. Tho' the Indians admire the wit and ſagacity of theſe judges, they are not very ſolicitous to imitate their example, and obey their commands. In a word, we there find a great many admirable ſentences of the ancient poets, who taught a ſound morality; but it is not from this work that they draw the principles of their deciſions.

All the equity of their judgments is ſupported on certain inviolable cuſtoms and uſages which parents tranſmit to their children. They look upon theſe uſages as certain and infallible rules for maintaining the peace of families, and determining the differences not only of private perſons, but alſo of princes. When a perſon can prove that his

claim

claim is founded on the cuſtom followed in the tribes, it is enough for him; there is no more reaſoning on the point; and he gains his cauſe. Tho' you ſhould demonſtrate that this cuſtom is ill eſtabliſhed, and ſubject to great inconveniencies, you would gain nothing, the cuſtom gets the better of the ſtrongeſt reaſons. How, ſay they, can people act againſt uſages eſtabliſhed by the general conſent of our anceſtors, by thoſe who have followed them, and by thoſe now alive? Would it not be madneſs to contradict what has been regulated by ſo many wiſe men, and authoriſed by continual experience.

They have not wrote theſe cuſtoms, becauſe, ſay they, if they were written in books, none but the learned could read them, whereas being tranſmitted from age to age by tradition, all the people are perfectly acquainted with them. This, ſay they, is the ſtate of the general laws and univerſal cuſtoms; but as for the particular cuſtoms, they were engraved on plates of copper, which were carefully preſerved in a great court at Cangibouram. The Moors having almoſt totally deſtroyed that city, it was not poſſible to diſcover what was become of theſe plates. They only know that they contain'd what related to every one of the tribes in particular, and the order which they ought to obſerve among each other.

As for other affairs not relating to the tribes, they are eaſily determined. Good ſenſe, and the light of nature, are ſufficient to guide a man who deſires to give judgment according to equity. Beſides, there are certain general maxims, which ſtand inſtead of laws, and which are known by every body. The principal rules relating to the tribes, are univerſally known.

The

The Indians ſacredly preſerve the remembrance of ſome of their kings, who have rendered themſelves famous by the equity of their judgments. The moſt celebrated of theſe kings was Mariadiramen. The following is a ſentence which he paſſed, and has ſome analogy to that formerly paſſed by Solomon.

A rich man had married two wives; the firſt, tho' ugly, had a great advantage above the ſecond; for ſhe had had a child by her huſband, and the other had none. The ſecond, in recompence for her ſterility, was ſuch a beauty, that ſhe became abſolute miſtreſs of the huſband's heart. The firſt wife, provok'd at ſeeing herſelf deſpiſed, while her rival was careſſed and ador'd, took a reſolution to be reveng'd on her, and had recourſe to a ſtratagem as cruel as it is uncommon among the Indians. Before ſhe executed her deſign, ſhe told the neighbourhood, that ſhe was ſenſible of her huſband's contempt for her, but that ſhe had a ſon by him, who ſhould for the future prove her only comfort. She accordingly ſhewed all the external marks of tenderneſs and affection to the infant, who was then at the breaſt.

After having thus convinc'd the world of the exceſſive love ſhe bore her ſon, ſhe reſolv'd to kill him, and accordingly twiſted his neck about, one night when her huſband was in a diſtant town, and laid the murdered infant by the ſecond wife, who was faſt aſleep. In the morning, pretending to ſeek for her ſon, ſhe ran into the chamber of her rival, and there finding the child dead, ſhe fell upon the ground, tore her hair, and made the moſt terrible howling and lamentation. The neighbourhood aſſembled, and were univerſally prejudiced againſt the other woman; for, ſaid they, it is not poſſible, that a mother ſhould kill her own

own ſon; and tho' a mother ſhould be ſo unnatural as to do ſo, yet this woman cannot be ſuſpected, ſince ſhe ador'd her ſon, and look'd upon him as her only comfort. The ſecond wife ſaid in her defence, that no paſſion is more cruel, violent, and capable of producing more tragical effects than jealouſy. This affair was brought before Mariadiramen. A day was appointed for each woman to plead her cauſe. They did ſo, with that natural eloquence which paſſion generally inſpires. Mariadiramen having heard both parties, paſs'd the following ſentence. Let the woman who is innocent, and who pretends that her rival is culpable, take a turn thro' the aſſembly in the poſture which he ſhould ſhew her. This poſture was ſuch as did not become a modeſt woman. Upon this the mother of the child ſaid, In order to convince you that my rival is culpable, I not only conſent to take one turn before this aſſembly, in the manner you have ordered, but alſo a hundred, if requir'd. As for me, ſaid the ſecond, tho' innocent, yet I ought to be condemn'd to the moſt cruel death, if I did what is now requir'd of me. The firſt wife wanted to make a reply, but the judge ordering ſilence, declared that ſhe was guilty, and her antagoniſt innocent; for, added he, a woman, who at the proſpect of certain death will not do an indecent action, could never have committed ſo great a crime; on the contrary, a woman, who having loſt all ſenſe of modeſty, without trouble commits the moſt indecent actions, ſufficiently declares, that ſhe is capable of perpetrating the blackeſt crimes. The firſt wife, confounded to ſee herſelf thus diſcover'd, was forc'd publickly to acknowledge her crime.

The

The Indians relate another ſtill more ſurpriſing example of the ſagacity of the ſame judge.

A man, whoſe name was Parjen, remarkable for his ſtrength and extraordinary agility, lived very peaceably with his wife for ſome time after they were married. But one day, falling into a paſſion at her, he left her, and went into a remote kingdom. During his abſence, one of the ſubaltern gods aſſumed the figure of Prajen, came into his houſe, and made up his peace with the father and mother-in-law. They had cohabited together three or four months, when the true Prajen came home. He threw himſelf at the feet of his father and mother-in-law, in order to regain his wife, confeſſing ſeriouſly, that he was in the wrong to fly into a paſſion on ſo ſlight an occaſion; and begg'd that his firſt fault might be forgiven. The father and mother-in-law were greatly ſurpriſed at this diſcourſe; for they could not comprehend how Prajen ſhould ſue a ſecond time for the pardon which had been granted him ſome time before. Their ſurpriſe was much greater when the counterfeit Prajen came home. When the two Prajens met, they began to quarrel, and wanted to baniſh each other from the houſe. The whole neighbourhood aſſembled, and none could determine which was the true Prajen. At laſt the affair turned out juſt like the two Soſias of Plautus. The diſpute being heard before by the king, was ordered to be laid before Mariadiramen. This judge was greatly perplex'd, when, after hearing the true Prajen declare his name, that of his father, of his mother, and other relations in the town where he was born, together with ſome remarkable events of his life, the counterfeit Prajen ſaid, The man who has ſpoken is a counterfeit; he has been inform'd of my name, of my relations, of my birth, and of

every thing that relates to me, and for that reaſon comes here to declare himſelf the true Prajen. I am the genuine man, and for the truth of my aſſertion, I appeal to all thoſe here preſent, who have been witneſſes to my ſtrength and agility. Upon this Mariadiramen ſeeing a large ſtone, which ſeveral men could hardly move, ſpoke in the following manner: What each of you ſays, puts it out of my power to give a deciſion, but I have at the ſame time an infallible method of diſcovering the truth. The true Prajen has the reputation of having great ſtrength and agility; let him give a proof of them by lifting this ſtone. The true Prajen did his endeavours, and the ſpectators were ſurpriſed to ſee him lift it from the ground. The counterfeit Prajen tried it in his turn, and lifted it as if it had been a feather. Upon this the aſſembly cry'd aloud, This is the true Prajen. But Mariadiramen pronounced ſentence in favour of the former, who had only raiſed the ſtone from the ground, and gave this reaſon for his procedure. He who firſt lifted the ſtone, has done what a man of extraordinary ſtrength can do; but he who took it up eaſily, and ſeemed to be able to toſs it up into the air, is certainly a demon, or one of the ſubaltern gods, who has aſſumed the figure of Prajen; for no mortal is capable of doing what he has done. Upon this the falſe Prajen was ſo confounded, that he diſappeared in an inſtant.

Theſe examples ſufficiently ſhew the ideas which the Indians have of a judge. They triumph when they expreſs the qualities which he ought to have. A judge, ſay they, ought to be entirely acquainted with the caſe diſputed. He ought perfectly to know all the maxims which are ſubſervient to law. He ought to be a man of ſubſtance, that he may be proof againſt bribery and corruption. He ought to

to be more than twenty years of age, that indiſcretion, which is peculiar to youth, may not render him raſh in his deciſions. He ought to be under ſixty years of age, becauſe at that period of life people begin to loſe ſome degrees of their penetration. If he is a relation or intimate acquaintance of one of the contending parties, he is not to appear in quality of judge. He is never to judge alone, however upright or knowing he may be. His principal care ought to be to examine the witneſſes, who are eaſily corrupted, and very dexterous in giving equivocal anſwers, an art in which the Indians excel; ſo that the judges order their anſwers to interrogations to be written; then they diſmiſs the parties, and order them to return two days after, when they propoſe the ſame queſtions to them in a ſomewhat different manner; and becauſe the judges are generally as artful as the witneſſes, they turn their anſwers into all the ſenſes they can bear, that they may not allow them the liberty of explaining what they have ſaid, otherwiſe than in a natural ſenſe.

Patience, ſweetneſs of temper, and eſpecially a great attention to what is preſcrib'd by cuſtom are alſo qualities ſtrictly recommended to their judges.

They have a kind of proverb which they often repeat; which is, that the judge ought never to look either at the countenances or hands of the perſons who plead their cauſes.

With reſpect to witneſſes whom a judge is often obliged to interrogate, they think that he ought to be diffident of ſuch as are young, paſt ſixty years of age, or poor. As for women, they are never to be admitted, except in caſes of abſolute neceſſity. They have a comical notion of the teſtimony given by people who have but one eye, and t.oſe who are hump-back'd, or labour under

any other deformity. Experience, ſay they, teaches us, that the teſtimony of ſuch people is always very ſuſpicious, and that they are much more eaſily corrupted than others.

Every chief man of a town is the natural judge of the ſuits carried on in the town. And that his judgment may be paſſed with the greater equity, he chooſes three or four of the moſt experienced inhabitants who are like aſſiſtants to him, and in conjunction with whom he pronounces his ſentences. If the perſon condemned is not content with his ſentence, he may appeal from it to the maniacarren, a kind of intendant, who has ſeveral towns under his government. In a word, he may appeal from this ſentence to the immediate officers of the prince, from whoſe ſentence there is no appeal. If the matter relates to the tribes, the head men of the tribes determine it. Relations may alſo be aſſembled on theſe occaſions, and they generally judge very equitably. The gourous, or ſpiritual fathers of the Indians, decide a great part of the diſputes which ariſe among their diſciples. Sometimes people at law refer their difference to arbitrators, and in this caſe they acquieſce in the ſentence pronounced, without having recourſe to other judges.

Among all theſe judges none take money except the maniacarrens, who are not always guilty of this practice. If the ſum is an hundred crowns, there are ten given to the maniacarren; and the perſon who gains the ſuit, is generally obliged to pay this ſum, he who loſes being ſufficiently puniſhed, by paying what he owed.

From the judges let us paſs to the parties. Thoſe who have any plea muſt plead their own cauſe, unleſs ſome friend does them that piece of ſervice. They muſt keep themſelves in a poſture that

that teſtifies reſpect in the preſence of their judges. They do not interrupt each other, but are content with uſing a particular motion of the head, to teſtify that they can confute what the other advances. When the pleaders have done, the parties and the witneſſes are remov'd, after which, the judge and the counſellors confer together; and when they have agreed on what is to be pronounced, the judge recalls the parties, and pronounces the ſentence.

As moſt proceſſes in the Indies relate to debts and borrowed ſums, it is proper the reader ſhould know the manner in which theſe debts are contracted. 'Tis then the cuſtom for him who borrows to give a mourri, that is a bond, to pay the creditor the principal, with intereſt.

The intereſt is of three ſorts, one of which is virtuous, another ſinful, and the other neither virtuous nor ſinful. The virtuous intereſt is one per cent. every month; for they ſay a perſon who takes no more exerciſes a great act of virtue. The ſinful intereſt is four per cent. every month. And the intereſt which is neither ſinful nor virtuous, is two per cent. every month, that is twenty four every year.

When a creditor has waited ſeveral months, or a year or two, he has a right to arreſt his debtor in the name of the prince, and then the debtor is obliged to ſtay at home, under pain of being declared a rebel. He is not, however, obliged to appear immediately before the judge; but the firſt perſons who go paſt intercede for him, and oblige the creditor to give him ſome months reſpite. When this time is expir'd, the creditor may again arreſt the debtor in the name of the prince. It is ſurpriſing to ſee the exact obedience of thoſe who are arreſted; for they not only dare not make their eſcape, but alſo can neither eat nor drink till the

creditor gives them liberty. Then they are brought before the judge, who also gives them some months respite, during which time the interest runs on. At last, if the debtor fails to pay at the time appointed, the judge condemns him to a kind of prison, and orders his cattle and moveables to be sold. The creditor generally abates something of the interest due.

When a man is accused of a robbery, and there are strong prejudices against him, they oblige him to prove his innocence, by putting his hand into a cauldron of boiling oil. When he pulls out his hand, they wrap it up in a piece of stuff, which they seal on his wrist. Three days after they view his hand, and if no mark of the scald appears, he is declared innocent. This species of trial is very common among the Indians, several of whom can take their hands out of boiling oil, as sound as when they went in. When the Indians require this trial, they order the criminal's hands to be wash'd, and his nails pair'd, lest there should be some remedy conceal'd, in order to prevent the scalding.

They have also recourse to another trial, which is very common among them. They take a large round vessel, whose mouth is no wider than is sufficient to admit one's fist. They put into this vessel one of these large serpents whose bite is mortal, if not instantly remedied. They also put a ring into it, and oblige the persons suspected of the robbery to take it out, and the first who is bit is declared culpable.

But before it comes to this extremity, they use great precaution not to expose the accused too rashly to such trials. If, for instance, it is a necklace of gold, or any other trinket that is stolen, they give thirty or forty persons round vessels, almost like a bowl, that the robber may secretly

ſecretly ſlip the thing ſtolen into his. Theſe veſſels are made of a ſubſtance which is eaſily diſſolv'd in water. Every one carries his veſſel to a kind of ciſtern, where all the veſſels are diluted, and where the thing wanted is found, without any poſſibility of diſcovering the robber.

In trials for murder, if the law of retaliation takes place in any tribe, it is to be obſerv'd with the utmoſt rigour. Murders are very rare thro' all the Indies; and this perhaps is the reaſon why there is ſo little juſtice for ſuch crimes. If a murderer gives a certain ſum to the prince, a hundred pagods, for example, he obtains a pardon; and what is ſurpriſing is, that if one of the king's officers is kill'd, the murderer will be acquitted for an hundred crowns. A huſband may, according to the law, kill his adulterous wife and her gallant; but he muſt kill both, and then there can be no action againſt him.

It is never lawful to kill a bramin; whatever crime he may commit, he can only be puniſhed by having his eyes pull'd out. This is the method in which juſtice is adminiſtred among the Indians. The following are ſome of thoſe maxims which ſerve as laws to direct their judges in the ſentences they paſs.

FIRST MAXIM.

When there are ſeveral children in a family, the male children are the only heirs, and the females have no pretenſions of heritage.

This maxim appears unjuſt, and contrary to the law of nature, ſince the girls have the ſame father and mother with the ſons. But the Indians anſwer, that it is cuſtom; and as it has been eſtabliſhed by

the conſent of the nation, it cannot be unjuſt. They add, that the daughters have no reaſon to complain, becauſe the fathers and mothers, or if they are dead, the brothers are obliged to provide them with huſbands; that by thus tranſplanting them, as it were, into another family, as noble as their own (for they cannot marry out of their own tribe) the advantages a girl reaps in the family into which ſhe goes, are equivalent to a dowry. 'Tis however true, that the fathers and mothers reap almoſt all the advantage ariſing from the marriage of their daughters. 'Tis to them that the huſband carries the ſum with which he purchaſes the lady deſtin'd for him; for it is to be obſerv'd, that among the Indians, to be married, and to purchaſe a wife, is the ſame thing.

The Indians anſwer, that the ſum given by the huſband to the father-in-law, has been almoſt all laid out in trinkets for the bride, that the reſt of it goes for the marriage-feaſt, and that it often coſts the father more than he received from the huſband.

There are, however, petty kingdoms in the Indies, where the princeſſes have great privileges, which place them above their brothers, becauſe the right of ſucceſſion is on the mother's ſide. If a king, for example, has a daughter by a wife of his own blood, tho' he have a ſon by another wife of the ſame tribe, the princeſs will ſucceed to the kingdom, and may marry whom ſhe pleaſes. Tho' her huſband is not of the blood-royal, yet her ſons are always kings, becauſe they are of the blood royal on the mother's ſide, the father being accounted nothing, and this right coming only by the mother.

From this principle we ought to conclude, that if this princeſs who reigns has a boy and a girl, and if there cannot be a princeſs of the blood royal found

found to be married to the prince, the children of the daughter will reign in preference to thoſe of her brother.

SECOND MAXIM.

It is not always the eldeſt ſon of the kings, princes, paleacarrens, and chiefs of towns, who ſucceeds to the ſtate and government of his father.

The Indians diſtinguiſh two ſorts of dignities; thoſe which deſcend from the father to the ſon, and thoſe which are only attached to ſome perſons, without neceſſarily devolving to their children. Theſe laſt the prince may diſpoſe of at pleaſure. But we here ſpeak of hereditary ſtates. Cuſtom has eſtabliſhed that the eldeſt ſhould ſucceed, when their good qualities render them capable of managing; but when they are dull and improper to govern, and when the younger brother has talents for diſcharging the office of a prince, the king diſpoſes of things ſo as make the ſtates fall to the ſhare of the younger ſon. If he ſhould not do ſo, the relations would aſſemble after his death, and make choice of the younger. As this cuſtom is eſtabliſhed the eldeſt does not take it ill. His condition is not the worſe on this account; for without having the chagrin and toils attending royalty, he enjoys a ſtate equally grand. They omit nothing which can alleviate the trouble produced by a forced ſubmiſſion. What is here ſaid of kings and princes, is alſo to be underſtood of palleacarrens, and the chiefs of cities. The younger is always preferred to the elder, when he has more merit.

The conduct of the Mogul princes is very different. He who has the greateſt forces and gains the

the victory over his brothers, succeeds to the vaſt ſtates of the Mogul. The vanquiſh'd are always either impriſoned or killed, This is a ſtrange policy of the Moguls, which induces brothers to a kind of neceſſity of murdering each other.

THIRD MAXIM.

When the effects have not been divided after the death of a father, all the riches which one of the children has acquired, are added to the common ſtock, and divided equally.

This maxim appears ſtrange, but it is generally followed by the Indians, and according to this rule they terminate a great many law-ſuits. An example will render the thing more obvious. Let us ſuppoſe an Indian who has five children, to leave at his death a hundred pagods, which amount to five hundred pounds of our money. If the diviſion is made, each of the ſons ought to have a hundred pounds; but if it is not made, as it rarely is, eſpecially when any of the brothers are unmarried, then tho' the eldeſt has acquired ten thouſand pagods, he is obliged to put them to the common ſtock to be equally divided among all the brothers. For this purpoſe the friends and relations are aſſembled, and if the eldeſt makes any reſiſtance, he is ſure to be worſted.

The Indians have another ſingular cuſtom; for when ſome of the brothers are dull, and the reſt men of parts, they make the portion of the former a great deal more than that of the latter; becauſe, ſay they, he who is dull is incapable of improving what is left him, whereas he of quick apprehenſions, will ſoon become much richer than his brother,

ther, to whom the greateſt part of the heritage is left.

In ſome families there is never any diviſion made; the ſtock is common, and they live in a perfectly good underſtanding. This happens when ſome one of the family is able to ſupport the reſt. He is at all the expence, and is, as it were, ſuperior to the others, who have no other care but to work agreeably to his orders. He provides wives for the ſons and grandſons of his brothers. He furniſhes them with the neceſſaries of life, cloaths, and other things requiſite; and what is ſurpriſing is, that there are ſome women capable of governing ſeveral families in this manner. In ſome families they never make a diviſion; and yet theſe are as rich as the generality of Indian families.

FOURTH MAXIM.

Adopted children have an equal ſhare with the natural children, in the effects of the fathers and mothers who have adopted them.

When a man has no children, he often adopts one of ſome of his relations. The ceremonies uſed on this occaſion are very remarkable. In a large houſe they aſſemble the relations of the perſon who adopts. There they prepare a large copper veſſel of the ſame figure with our plates. They place it in ſuch a manner that the child to be adopted can put both his feet into it, and ſtand upright if he is able. Then the huſband and the wife ſpeak nearly to the following purpoſe.

We acquaint you that having no children we are deſirous to adopt him whom you ſee. We ſo make choice of him for our ſon, that henceforth our effects ſhall belong to him, as if he was really begot

got by us. He has no longer any thing to hope from his natural father. We are therefore going to drink the ſaffron water, if you conſent to it. The byſtanders give their approbation by a nod of the head. After this the huſband and the wife, ſtooping, pour ſaffron water into the veſſel, and after having waſhed the child's feet with it, they drink the remainder. Then they take a minute of what has paſſed, which is ſigned by the company.

If the huſband and wife afterwards have children, they are the younger brothers of him who has been adopted, and he enjoys the privilege of the eldeſt, ſince the law makes no difference between adopted and other children.

There is another kind of adoption which has not the ſame advantages, but has ſomething very ſingular in it. If parents have loſt a child and ſee another who reſembles him, they deſire this other to look upon them as his father and mother, to which the child readily conſents, and then the adoption is made. This adoption is in the language of the country called oppari. What is remarkable is, that an Indian of a low tribe may, by oppari, take a bramin for his ſon, if he has features like his child, and the bramin will call him father; but they muſt never eat together, becauſe they are of different tribes.

What is ſaid of the father and mother with reſpect to the ſon adopted by oppari, is alſo to be underſtood of brothers and ſiſters, who in like manner adopt him or her who reſembles a dead brother or ſiſter. They afterwards treat them as brothers and ſiſters, aſſiſt them in their wants, and ſhare their happineſs and misfortunes. The Indians ſay, that by this means they greatly alleviate their grief for their relations, ſince in thoſe whom they adopt they find other children, brothers and ſiſters.

ſiſters. But this ſort of relationſhip is terminated by the death of the perſons who adopt, and does not paſs to their children.

FIFTH MAXIM.

Orphans are to be treated like the children of thoſe to whom they are entruſted.

One of the wiſeſt regulations among the Indians is, that relating to orphans. If they have uncles and aunts, theſe are by the law deemed their fathers and mothers, and obliged to bring them up as the other children of the family. The reputed father is obliged to marry them when they are of a proper age, and to lay out the expences neceſſary to put them in a way of living.

In conſequence of this cuſtom, when a man has loſt his wife, he endeavours to marry her ſiſter. This maxim appears admirable to them; for, ſay they, by this means there is no ſtep-mother, and the children of the dead ſiſter always become thoſe of the living one. If this man did not marry his wife's ſiſter, he muſt eſpouſe another, who in all probability would abuſe her huſband's children for the advantage of her own. Whereas, if the ſiſter of the deceas'd marries her brother-in-law, who is a widower, ſhe will always look upon her ſiſter's children as her own.

In a word, if orphans have neither elder brother, uncles nor aunts, they aſſemble the relations, who make choice of ſome one to take care of them. They write down what the orphan's father has left; and he is obliged to quit him as ſoon as he is of age. Thoſe who bring up orphans, make them earn their bread as ſoon as they are able to work.

If

If they are children of parts they put them to ſchool to learn to read, write, and to manage accounts.

SIXTH MAXIM.

Whatever crimes children may commit againſt their fathers, they can never be diſinherited.

The Indians imagine that this cuſtom is very wiſe and equitable. Thus, when a ſon ſtrikes and wounds his father, or even makes an attempt on his life, without ſucceeding, the father is obliged to pardon him; and if a father ſhould declare on his death-bed, that any one of his ſons ſhould not have a ſhare of his heritage, on account of his bad behaviour, the brothers who ſhould pretend to execute the will of their father, would be caſt in all the courts of the Indies.

When we tell the Indians, that it is contrary to common ſenſe, to ſay that a father cannot detain his effects from an ungrateful ſon, who has deſpiſed and inſulted him, they anſwer, that on the contrary, nothing is more ſcandalous than to ſee a father die with ſentiments of hatred to his children. A father, ſay they, is obliged to pardon his ſon, however ungrateful and unnatural he may be; for, in a word, is not this ſon begotten by the father? he is therefore a portion of himſelf; and who ever ſaw a man cut his right hand, becauſe it had cut his left?

For the ſame reaſon children cannot diſinherit a father, however unreaſonable he has been to them. Thus, if an only ſon dies very rich, and without children, his father is his ſucceſſor, and nothing can deprive him of the heritage.

SEVENTH

SEVENTH MAXIM.

The father is obliged to pay all the debts which the children have contracted, and the children thoſe contracted by their fathers.

This is a general rule, and ſerves to decide proceſſes of this kind. According to this cuſtom if a debauched ſon borrows money every where, and gives lawful notes for it, the father is obliged to pay his debts. He, in vain, ſays, that he does not deſerve this favour, ſince the money he borrowed only ſerved to augment his debauchery. They anſwer, that the goodneſs of a father does not permit him to uſe this rigour. The ſame rule is obſerved with reſpect to the debts which the fathers contract, ſince the children are obliged to pay them. Tho' they could prove, that the father has ſquandered away the money borrowed on fooliſh, or perhaps wicked purpoſes, and even tho' the ſon ſhould renounce the inheritance, he is always ſentenced to pay the debts of his father.

The ſame holds true of the debts which one of the brothers contracts before the diviſion of the inheritance. The eldeſt is obliged to pay them, and the ſquanderer has his ſhare of the common ſtock as the other children. The reaſon of this conduct is founded on this maxim, that after the death of the father, the eldeſt brother becomes, as it were, the father of his brothers. In a word, the others throw themſelves at his feet, and he looks upon them as his children. Thus, as the father is obliged to pay the debts of his children, the eldeſt brother, who is in the place of a father, is obliged to pay their debts before the diviſion of the inheritance.

ritance. But this diviſion is always made very late. This rule does not extend to the ſiſters, ſince neither fathers nor brothers are obliged to pay their debts.

Theſe are the general maxims which ſerve as laws among the Indians, and which are exactly followed in the diſtribution of juſtice.

CHAP. XII.

Deſcription of California; character, manners, and occupations of the inhabitants of that iſland; the remarkable plants, fruits, and animals found there.

IN California, as in other beautiful countries, there are ſpacious plains, agreeable vallies, and excellent paſturage for large and ſmall cattle; fine ſprings of freſh water, rivulets, and rivers whoſe banks are covered with willows, reeds, and wild vines.

During the ſummer the heats are very intenſe upon the coaſt, and it rarely rains. But in the main-land the air is more temperate, and the heat is never exceſſive. This holds nearly true with reſpect to the winter. In the rainy ſeaſons there is a kind of deluge, and when it is over, inſtead of rain, the dew is ſo copious every morning, that one would think it had rained, which renders their grounds very fertile. In the months of April, May, and June, there falls with the dews a kind of manna, which is congealed and hardened under the leaves of the reeds. It is not quite ſo white as ſugar, but is equally ſweet.

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The rivers are full of fiſh, and eſpecially of crabs, which they put into fiſh-ponds, to be taken out as occaſion requires. There is alſo great plenty of a fruit which the Spaniards call xicarnes, and which has the fineſt taſte of all the fruits in Mexico. Thus, we may ſay, that California is a very fertile country. During the winter, and at all ſeaſons, we find on the mountains large piſtacho trees of all kinds, and among the reſt, that which the Chineſe, who are the natives of the country, call paloſanto. It bears a great deal of fruit, and an excellent incenſe is obtained from it.

If this country abounds in fruits, it is not leſs fertile in grains, of which the natives have fourteen kinds. They alſo uſe the roots of ſeveral trees and plants, and among others that of yguea, to make a kind of bread. Here are produced excellent cherries, a kind of red lentils, of which they eat a great deal, citrons, and water-melons of an extraordinary ſize.

The country is ſo fertile, that it is common for ſome plants to bear three times a year. Thus, with labour in cultivating the ground, and ſkill in diſtributing the waters, the country would be extremely fertile, ſince without theſe advantages, fruits and grains of all kinds are found in great plenty.

Beſides ſeveral ſorts of animals known among us, which are found here in great plenty, and are good food, as goats, hares, rabbets and others, there are two ſorts of fallow beaſts unknown in Europe. They call them ſheep, becauſe they have ſomething of the figure of our ſheep. The firſt ſpecies is as large as a calf one or two years old. Their head has a great reſemblance to that of a ſtag, and their horns to thoſe of a ram. Their tail and hair which are ſpeckled, are ſhorter than thoſe of a ſtag.

But their hoofs are large, round, and cloven, like thoſe of an ox. Their fleſh is very good and delicate. The other ſort of ſheep, ſome of which are black, and others white, are leſs different from ours. They are larger, and have a great deal of wool, which is eaſily ſpun, and proper for making cloth.

Beſides theſe animals uſed for food, there are lions, wild cats, and many others like thoſe found in New-Spain. They have brought into California cows, and a great number of ſmall cattle, ſuch as ſheep and goats, which have multiplied incredibly. They have alſo imported a great many horſes and mares, in order to ſtock the country with them.

As for birds, all thoſe of Mexico, and almoſt all thoſe of Spain, are found in California. There are pigeons, larks, turtles, and a great many partridges of an excellent taſte, geeſe, ducks, and many other ſea and freſh-water fowls.

The ſea abounds in fiſh of an excellent taſte. They there catch pilchers, anchovies, and tunies, which ſuffer themſelves to be taken with the hand on the ſea-ſhore. There are very often whales ſeen there, and all kinds of tortoiſes. The ſhores are full of ſhells much larger than thoſe from which the mother of pearl is obtained. 'Tis not from the ſea that they get their ſalt, ſince they have ſalt-mines, the ſalt of which is white and ſhining like cryſtal; but at the ſame time ſo hard, that they are often obliged to break it with a large hatchet.

It is near two centuries ſince California was known. Its coaſts are famous for the fiſhing of pearls. This has rendered it the object of the deſires of the Europeans, who have often formed ſchemes for eſtabliſhing themſelves there.

Tho'

Tho' heaven has been ſo bountiful to the Californians, and tho' their ſoil ſpontaneouſly produces, what does not grow elſewhere without a great deal of trouble and pains, yet they have no regard to the riches and abundance of their country. Content with the neceſſaries of life, they are little ſollicitous about every thing elſe. For fiſhing they uſe ſmall boats, without any dread of danger, becauſe they are excellent ſwimmers.

The country is very populous, eſpecially in the northern parts; and tho' there are very few boroughs which do not conſiſt of twenty, thirty, forty, or fifty families, yet they have no houſes. The trees defend them from the heat of the ſun by day; and of the branches and leaves they make a kind of bower, to ſcreen themſelves from the injuries of the nocturnal air. In winter, a conſiderable number of them ſhut themſelves up in caves which they dig in the earth.

The men go quite naked, and only cover their heads with a ſort of very fine ſtuff, or with a kind of net-work. For an ornament they carry about their necks, and ſometimes in their hands, figures of mother of pearl very well cut, and very elegantly adorned with ſmall round fruit almoſt like beads. For arms they have nothing but bows and arrows, or javelins, which they always carry in their hands, either for hunting or defending themſelves againſt their enemies; for the boroughs frequently make war upon each other.

The women are cloathed a little more modeſtly, wearing from their middle to their knees, a kind of cloth made like the fineſt mats. They cover their ſhoulders with the ſkins of beaſts, and like the men wear very fine nets about their heads. Theſe nets are ſo fine that the Spaniſh officers tie up their hair with them. The women, as well as

the men, wear necklaces of mother of pearl, mixed with the kernels of fruits and ſhells, which hang down to their middle, and bracelets made of the ſame materials.

The moſt general employment of the men and women is ſpinning. The thread is made of long herbs, which with them ſerve inſtead of flax and wool; or of a ſubſtance reſembling cotton, which is found in the barks of certain fruits. Of the fineſt thread they make the ſeveral ornaments which they wear; and of the coarſeſt they make ſacks for ſeveral uſes, and nets for fiſhing. The men alſo with ſeveral herbs, whoſe fibres are extremely compact and filamentous, and which they know how to handle dexterouſly, make pieces of kitchen furniture of all ſizes. The ſmalleſt pieces ſerve for cups, the middling for plates, and ſometimes as bonnets for the women, the largeſt for baſkets for gathering the fruits, and ſometimes for baſons for boiling them in. But theſe veſſels muſt be continually mov'd while they are on the fire, leſt the flame ſhould lay hold of them, which would ſoon burn them.

The Californians have a great deal of vivacity, and are naturally addicted to raillery. We find no form of government among them, nor almoſt any religion, or religious worſhip. They adore the moon, and in honour of her cut off their hair which they give their prieſts to be employed in various kinds of ſuperſtitions. Every family makes laws to itſelf at pleaſure; and this is probably the reaſon why they ſo often fight with each other.

CHAP.

CHAP. XIII.

Of the chi-tſe, the lit-chi, the hoarchu, the cotton, and of the flowers of the willow, their virtues, qualities, medicinal properties, and the uſes made of them in China.

THE chi-tſe or ſe-tſe, is not leſs valuable on account of its beauty, than of the goodneſs of its fruit. In the provinces of Can-tong and Honan the fields are all covered with this kind of trees, ſome of which are as large as nut-trees. Thoſe which grow in the province Tche-kiang bear better fruit than that produced elſewhere. The ſkin is always green without ever becoming yellow or reddiſh, like that of the others. Theſe fruits continue freſh during the whole winter.

The leaves of the chi are of the ſame colour and form with thoſe of the nut-tree, only they are leſs pointed and rounder at the extremity. The ſhade of it is not unwholeſome like that of the nut-tree, under which it is dangerous to fall aſleep. A Chineſe author has theſe trees in ſo great eſteem, that he adviſes the literati to have them near their cloſets, and to repoſe under the ſhade of them.

The ſhape of the fruit is not univerſally the ſame. Some are round, others oblong and oval; ſome are flat, and in a manner divided into two, almoſt like two apples joined in the middle. This fruit is as large as an orange or a lemon, and is firſt of a lemon, and then of an orange colour. The ſkin is tender, delicate, ſmooth, and even. The ſubſtance of the fruit is firm, and ſouriſh to the taſte, but becomes milder as it becomes riper. It at laſt becomes rediſh,

and acquires a ſweet and agreeable taſte. Before its perfect maturity, when the ſkin is taken off, the fruit has a certain mixture of acidity and ſweetneſs, which is very agreeable, and gives it an aſtringent and ſalutary virtue.

This fruit includes three or four hard and ſtony pippins, which contain the ſeed. Some of them raiſed artificially are without pippins, and theſe are moſt eſteemed. Theſe fruits rarely become ripe on the trees, and are gather'd in autumn. When they have arrived at their natural bulk they lay them on ſtraw, or on hurdles to ripen.

This account is only true of the tree, which they take care to cultivate. As for the wild chi it has a crooked trunk, and its branches which are interwoven, have ſmall prickles. Its fruit is not larger than a ſmall apple.

The culture of this tree conſiſts principally in the art of graſting it ſeveral times; for when it has been thus grafted, the pippins of the fruit become much leſs, and the fruit ſometimes grows without any pippin at all. The peach, or rather the alberge tree, when grafted on a chi, produces large yellow fruit of an exquiſite taſte.

The Chineſe botaniſts pretend, that the fruit of the chi is naturally mild and cold. They ſay, firſt, that when it is eaten immediately after it is pull'd from the tree, it renders the hearing and ſmell acuter. Secondly, that it cures diſorders of the abdomen, and removes heart-burns. Thirdly, that it keeps the mouth cool. Fourthly, that this fruit eaten by perſons drinking their wine, which is a kind of beer made of rice, renders them ſooner intoxicated than they would otherwiſe be. A famous Chineſe author ſays, that this only holds true of warm wine, and that this fruit removes intoxication on other occaſions.

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The ſame author quotes another more ancient, who enumerates ſeven very conſiderable advantages in the chi. Firſt, it lives a great many years, conſtantly producing fruit, and decays very ſlowly. Secondly, it ſpreads a grateful ſhade to a great diſtance. Thirdly, the birds dare not build their neſts in it. Fourthly, it is free from worms, and all other inſects ſo prejudicial to other trees. Fifthly, when it has been covered with a hoar froſt, its leaves aſſume various and agreeable colours. Sixthly, its fruit is not only beautiful to the eye, but grateful to the taſte. Seventhly, when the leaves fall, they enrich the ſoil, as well as the beſt manure.

A third author, after ſome encomiums on this tree, pretends, that its fruit eaten crude, and too plentifully, produces defluxions; and that tho' it is wholſome when dry, yet it will then give riſe to flatulences, if eaten to exceſs. The deſire of having it ſoon, often makes them gather it before it is ripe, but there are ſeveral ways of ſupplying this defect. If they keep it ten days in a proper place, it loſes its natural acidity, and becomes ſweet like ſugar or honey. They alſo forward its maturity, by letting it lie two or three days in water, which they change often. But they ſay, that by being thus macerated, it aſſumes a cold quality. Some, in order to ripen it, bury it in ſalt, which is a means of removing its acidity, but does not render it the more wholſome. Others put it three or four times into a warm lixivium of aſhes; but this forc'd maturity has its inconveniences, eſpecially with reſpect to ſick perſons.

The Chineſe have a cuſtom of drying this fruit almoſt in the ſame manner in which figs are dried. They make choice of the largeſt, and ſuch as have no pippins; or, if they have any, they dexte-

rouſly extract them: Then they preſs the fruit between their hands, to render them flat; after which they expoſe them to the ſun and dew. When they are dry, they put them in a large veſſel, till they appear cover'd with a kind of white jelly, which is their ſpirituous juice, appearing on the ſurface. The juice thus prepar'd renders this fruit beneficial to thoſe who labour under diſorders of the lungs.

We muſt not forget a remark made by the ſame Chineſe author, which is, that at the ſame meal you muſt not eat crabs and chit-ſe. He pretends, that there is an antipathy between them, and that by theſe two aliments there is a reciprocal combat produced in the ſtomach, which excites violent gripings, and often brings on a dangerous flux.

We ſhall now conſider another tree, whoſe fruit, called lit-chi, is not leſs ſurpriſing, ſince in it we find a juſt temperature of heat, cold, and all the other qualities. It gives ſtrength and vigour to the body, and vivacity, ſubtilty, and ſolidity to the genius. If it is eaten to exceſs, it is heating. The kernel gently roaſted, rendered friable, reduced to a fine powder, and taken in the morning with warm water, is a certain remedy againſt the inſupportable pains of the gravel, and nephritic colic. It is ſaid, that before the hand of man begins to gather the lit-chi, no bird nor inſect dares come near the tree; but as ſoon as any one has touched the branches and the fruit, all ſorts of voracious birds, large and ſmall, come to prey upon the fruit, and do a great deal of damage. But there is nothing marvellous in this, ſince they only gather theſe fruits when they are ripe; and of this the birds are as good judges as men.

When this fruit is intirely ripe, and allow'd to remain but one day longer on the tree, it changes its colour. If it is left two days, there is a change

in

in its taſte; and if we wait till the third day, the change is ſtill more remarkable. It is probably with this fruit as it is with the beſt European melons, ſince it muſt be eaten in the country where theſe trees grow. Could they preſerve them freſh, and import them into Europe, as they have done ſome dried ones, the Europeans could only judge imperfectly of their goodneſs. The lit-chi brought to Peking for the emperor, and put up in tin veſſels full of brandy, mix'd with honey, and other ingredients, have indeed an appearance of freſhneſs, but loſe a great deal of their taſte.

We ſhall now ſpeak of another tree more known in France, and in the laſt age brought thither from America. This is the acacia, which the Chineſe call hoaichu. They pretend that the ſeeds taken from their cods, are ſucceſsfully uſed in medicine, and that the flowers tinge paper with a very particular yellow colour.

With reſpect to the uſe made of theſe ſeeds in medicine, the following is a recipe given by a Chineſe author. In the beginning of the winter, we muſt put the ſeeds of the acacia into as much of the gall of an ox as will totally cover them. Then after having dried the whole in a ſhade for a hundred days, we are every day to ſwallow one of theſe ſeeds after meals. The author aſſures us, that by continuing this practice daily, the ſight becomes better, the hemorrhoids are cured, and hairs already grey with age are rendered black.

The ſecond advantage of acacia ariſes from its flowers, which tinge paper or ſilk with a yellow colour. In order to ſucceed in this, take half a pound of the flowers gathered before they are full blown, and ready to fall. Toaſt them gently over a ſmall clear fire, ſtirring them often in a copper pan, in the ſame manner as you toaſt the little buds

buds and leaves of new-gathered tea. When in toaſting and ſtirring the flowers, you perceive them to aſſume a yellow colour, throw three ſmall porringers full of water upon them, and boil the whole till it is inſpiſſated, and the colour becomes deeper; then paſs the whole thro' a piece of coarſe ſilk. When the liquor is expreſs'd, add half an ounce of alum to it, and an ounce of calcin'd oyſter-ſhells finely pounded. When the whole is incorporated, you will have the yellow tincture.

The Chineſe dyers uſe the ſeeds and flowers of acacia to dye three different ſorts of yellow. Having firſt toaſted the acacia flowers, they add to them the ſeeds intirely ripe, and taken from the cods; but they uſe much leſs of the ſeeds than of the flowers. If they intend to give the colour of ngo-hoang, which is the moſt lively, and are to dye five or ſix yards of ſilk, they uſe a pound of theſe flowers, and four ounces of alum, which quantities they augment in proportion to the length and breadth of the pieces they have to dye. To give the colour king-hoang, that is the gold-colour'd yellow, they firſt give the colour we have mention'd, and it being dry, they add a ſecond colour, in which there is a little braſil-wood. They make the pale yellow in the ſame manner as the firſt, with this difference, that inſtead of four, they only add three ounces of alum.

Tho' the river-water is beſt for dying, yet all the waters of this kind are not equally good. That, for inſtance, which has a bad taſte, is leaſt proper for the purpoſe. However, if none elſe can be had, inſtead of one dip, the dyer muſt give the cloth two, before he can obtain the beautiful colour he wants.

When the flowers of acacia are toaſted, they may, as well as the ſeeds, be kept during a whole year,

year, and may be employed in dying. But when both are thus kept, they muſt be longer boil'd than if they were recent. When they are old, their juice is more difficultly extracted, and leſs in quantity. Beſides, the recent flowers always give the moſt beautiful colour.

The Chineſe botaniſt teaches us the method of cultivating this tree, in ſuch a manner as to make it grow quickly, and keep the better. When, ſays he, you have gathered the acacia ſeeds, dry them in the ſun, and a little before the ſummer ſolſtice throw them into water. When they have budded there, ſow them in a fat ſoil, mixing hemp-ſeed with them. Both ſeeds will riſe, but you muſt cut the hemp in a proper time, and tie the young acacias to ſmall props. The following year ſow hemp again, which may be alſo done the third year, in order to preſerve theſe delicate plants from the injuries of the weather. When the ſhrubs are become ſtrong, they are to be tranſplanted, and will become very beautiful trees.

A celebrated Chineſe chymiſt highly recommends an artificial medicinal ſtone, to which great virtues are aſcribed. Its compoſition is as follows.

Take twenty or thirty pints of the urine of a young man, about fifteen years of age, and of a ſound and robuſt conſtitution. Put it into an iron veſſel, and hold it over a clear charcoal fire, till you ſee a white froth on the ſurface; then pour into it, drop by drop, ſome of the freſh oil of turnips. Into a veſſel full of this urine, pour a common tea-cup-full of this oil. The whole is to be boil'd till no more remains than a dry ſediment of a blackiſh colour. This is to be reduc'd into a fine powder, after it is ſo ſprinkled with oil, that the oil has penetrated all its parts. This powder is put upon a tile, over which is laid another, and

both

both are covered and surrounded with burning charcoal. But two crucibles would be better, if a vent was left in the superior one. When you think all the humidity is dissipated, when no steam appears, and when what remains is cold, you are to take it and pound it in a mortar. When it is reduc'd to a very fine powder, it is to be put into a large porcelain vessel, which is to be carefully cover'd with a fine and clean mat. Over this there must be another covering of cloth, and over both a double one of coarse paper. Then boiling water is pour'd, drop by drop, thro' the coverings, which are left slack in the middle for this purpose. To finish the operation, they place the vessel with its contents in a copper pan, where the matter is bak'd again till it is dry and firm. This is the medicinal stone, which they call the autumnal stone.

It is used in China for the dropsy and the phthisis. Their physicians pretend, that it is an excellent remedy for disorders of the lungs. This is the reason why it is called the autumnal stone, not that the autumn is best for preparing it; for this denomination includes a more mysterious meaning. 'Tis a maxim in the Chinese medicine, that the noble parts of the human body have a particular relation to some of the four seasons of the year. Now as the autumn is the season, which, according to the Chinese, has a relation to the lungs, and as this medicine is salutary to those labouring under pulmonary disorders, it is therefore called the artificial autumnal stone.

But to return to botany. If we consider the willow thoroughly, we find, that at the opening of its flowers, there appears a kind of dry froth, with which they are generally cover'd. No doubt the internal fermentation reduces to a froth, that glutinous substance in which the seeds of the flowers

flowers as it were ſwim, in different cods; for if the weather is cold or cloudy, it hinders the buds of the willow from putting out their whitiſh ſubſtance. If we put a bud, before it is opened, into a microſcope, we perceive that the matter coming out of its point, reſembles the glair of a beaten egg put into a froth, with which the whole flower is ſucceſſively cover'd. It may happen that every ſeed included in its caſe, may ſwim in this glairous matter, and be nouriſh'd by it in the ſame manner as the chick is in a hen's egg. After this the moſt ſubtil part of the air penetrating this froth as ſoon as it is detached, gives it the form of network, by inſinuating itſelf into the ramous parts, ſeparating and raiſing them, and drying the glutinous humour, which united them, by which means they loſe the figure of filaments.

The Chineſe botaniſt ſays, that the flower of the willow is cover'd with ſmall ſcales. When the flowers are dry without their ſeeds and froth, they in a microſcope appear like the comb of waſps, full of open cellules. What is detach'd from the flowers, and floats in the air, is ſome times call'd their ſilk, their wool, or their cotton. When the weather is hot, ſuch a quantity of theſe flakes fall from the willows, that they appear like a thick ſnow covering the ground. When they ſlip under the herbs, or the points of pretty high graſs, they make the ground reſemble a meadow gently overflow'd by the limpid waters of ſome rivulet.

The Chineſe author ingeniouſly ſports with theſe appearances, and gives a full ſcope to his imagination. It is cotton, ſays he, which the willows ſpread, and yet it is not really ſo; for I am all cover'd with it, and yet not cloth'd the warmer. It reſembles ſnow, which darkens the air, and yet it is not really ſuch; for the ſun; when hotteſt,

cannot

cannot melt it. The ſwallow, which can fly in a gentle rain, ſurpriſed by this cloud of white flakes, has her flight ſo retarded, that ſhe is obliged to ſtop. She thinks that ſhe has appear'd before the ſpring. Theſe willows, which yeſterday ſeem'd young and verdant, to-day ſeem old and decayed. So ſudden a change in a garden gives me a ſurpriſe, equal to that which would be produced by my ſeeing a friend yeſterday with yellow hair, and a florid complexion, come to me to-day, with his countenance pale, and his hairs grey.

But paſſing theſe trifles of our Chineſe author, let us come to ſomething more ſerious. It is only the willow which caſts burrs full of ramous parts, reſembling cotton. Theſe burrs are gathered, and preſerv'd as well as the cotton. But it does not ſeem to be eaſy to card this ſpurious cotton, to ſeparate the ſeeds from it, which are ſmall and flat, and to ſpin it ſo as to render it fit for ſtuffs. Some Chineſe authors, however, aſſert, that it was formerly us'd for childrens beds; and that when the cotton was ſcarce, they lin'd the winter-boots with it; as alſo mats, cuſhions and coverings. They alſo ſay, that near China, the people, of the flowers before they are blown, make a liquor which ſoon intoxicates. In times of famine, the poor people gather the dried bodies of the flowers, without the cotton and the ſeed, reduce them to a powder, and make broth of them for their ſupport.

The Chineſe phyſicians pretend, that by applying the dry flower, which is very combuſtible, and ſetting fire to it, they have an excellent remedy againſt the jaundice, and convulſions of the limbs. This, according to them, is equally proper for the cure of all ulcers, when apply'd in form of a deſiccative and abſorbent powder.

As

As for the cotton detach'd from it, and carried off by the wind, the Chineſe phyſicians aſſert, that it cures all ſorts of tetters, calloſities, wounds made by iron, and the moſt obſtinate chancers: that it accelerates the ſuppuration of wounds, ſtops hemorrhages and the lochia in women after difficult labours; that it is good againſt the hardneſs of the ſpleen, and is moderately cold.

'Tis the common opinion in China, that there is a double tranſmutation of the cotton of the willow. The phyſicians ſay, and the vulgar believe, firſt, that if this ſpecies of cotton falls in a lake or pond, it is in a night's time chang'd into the herb leouping, which is ſeen floating on ſtagnant waters, and whoſe roots do not reach the bottom. Secondly, that every little flake come from the willow, and falling upon furs, or habits made of ſkin, is transform'd into a maggot or ſmall worm. They quote many authors who aſſert the ſame thing, for which reaſon, when the willows are in flower, the Chineſe are very careful not to expoſe their habits lin'd with ſkins.

Tho' the Europeans are far from believing a ſimilar metamorphoſis, yet they have the ſame experience, and uſe the ſame precaution with the Chineſe, which proves the truth of the fact. But it is probable, that this flake is impregnated with ſmall eggs of butter-flies, or ſmall worms, which live upon the willows; or it may happen, that the ſeed ſerves as aliment to the worms, or as a ſhelter to them, which muſt contribute greatly to multiply them in a ſkin.

As to the aquatic and floating plants, it is probable, that their time of blowing happens juſt with the falling of the willow flowers, and that theſe laſt only ſerve to unite ſeveral of theſe ſmall plants, and render them ſenſible to the eye.

The

The Chineſe botaniſt does not forget the manner of planting and cultivating theſe trees, in order to have them beautiful, and make them grow to a certain height. The willows are ſubject to be damaged by large worms, or to be blaſted by a kind of caterpillar. He gives the following directions to preſerve them from theſe inſects. When a branch of willow is planted, we muſt make a hole two or three inches from the part which is to ſend off the roots. Thro' this hole we are to put a piece of fir long enough to extend two or three inches over each ſide. This kind of croſs ſet in the ground has a good effect, ſince it will be more difficult to pull up new-ſet plants, becauſe the croſs-wood keeps them better than their roots would do. Some, in order to defend theſe new-planted trees from worms put into the holes in which they are planted a quarter of a head of garlick, and a piece of liquorice an inch long.

Another manner of planting theſe ſlips, is to turn the large end uppermoſt, and ſet the top in the ground. By this means a kind of willow will be produced, which they call the hairy willow, becauſe its branches, except ſome of the largeſt, are ſmall, and hang down like hairs. The literati love to have theſe in their ſmall gardens before their ſtudies.

It is ſurpriſing that the willow, tho' naturally light, porous, and ſubject to rot, is nouriſhed and preſerved in water, as well as piles of the hardeſt wood. This is what they conſtantly experience in Peking, where the wood of the willow is uſed in building the wells made in the gardens for watering flowers and pot-herbs. This Invention of the Chineſe may, perhaps, be reliſhed in Europe.

When

When they are determined to make a well, they chuſe a place where they think they can find water. They dig a round hole about three feet deep, and when the bottom is made very even they lay the baſis of the well, on which they are to erect the maſonry. This baſis is made of flat pieces of the wood of the willow, at leaſt ſix inches thick, and taken out of the trunk of a large and freſh tree. Theſe pieces are joined to each other in a round form, and leave a large vacuity. On theſe large planks they build the maſonry of the well, and in proportion as they raiſe it, they cover all the outſide with the earth they have dug up. Then they dig in the middle, and in proportion as they advance they take all the earth equally from under the wood-work which ſuſtains the maſonry. This laſt gradually ſubſides, and is augmented above ground. This labour is continued and the workmen dig in the ſame manner, till they have found a ſure and copious ſpring.

CHAP. XIV.

Diſcovery of the Caroline iſlands; ſyſtem of the religion, and articles of faith of the inhabitants; their policy, government, and dexterity in fiſhing for whale.

IN 1721, a foreign bark little different from thoſe of the Marian iſlands, arrived in a deſart place in the iſle of Guahan on the eaſtern coaſt, which they call Tarafoſo. In this bark there were twenty-four perſons, eleven men, ſeven women, and ſix children. A Marian Indian fiſh-

ing on that coaſt, went and told the head of the borough, who forthwith went to the aſſiſtance of theſe poor iſlanders, and his good uſage engaged them to come on ſhore.

Their bark was of a remarkable built. Her ſail was a mat made of the leaves of the palm-tree. The ſtem and ſtern were of the ſame figure, and terminated in a point riſing in form of a dolphin's tail. There were four ſmall apartments in her, for the accommodation of paſſengers. The one was at the ſtem, the other at the ſtern, and the other two on the ſides of the maſt to which the ſail was fixed, but they ſtood out from the bark like two wings. Theſe apartments had roofs made of palm leaves in form of a canopy, to defend paſſengers from the rain and the heat of the ſun. In the hold of the bark were ſeveral diviſions for the ſtowage of the cargo and other proviſions. What was ſurpriſing in this bark was, that there was no nail in her, tho' the planks were ſo tied together with cords that no water could get between them.

This bark was in company with four others belonging to the iſle of Farroilep, and bound for that of Ulcea, but in their paſſage they were by a north-weſt wind diſperſed, ſome one way, and ſome another.

The iſlanders have no other cloathing than a piece of ſtuff which they tie about their loins, and between their legs. Their chiefs have a kind of robe open on the ſides, which comes as low as their knees. The women beſides their girdle have a kind of petticoat which comes almoſt to their knees.

The nobility paint their bodies, and pierce their ears, in order to fix in them flowers, aromatic herbs, cocoa ſeeds, or glaſs, if they can get it.

In

In general the people are tall and well proportioned. Moſt of them have curled hair, large noſes, full and piercing eyes, and thick beards. They are of different colours, ſince ſome have that of the genuine Indians, while others ſeem to be mungrels, begot between the Spaniards and the Indians. There are alſo mulattos among them, and theſe are the offspring of the negroes and the Indians.

The Caroline iſlands lie between the ſixth and eleventh degree of north latitude, and thro' thirty degrees of latitude run to the eaſt of the cape of the Holy Ghoſt. Theſe iſlands are divided into five provinces, ſpeaking different languages, each of which ſeems to be derived from one, which is probably the Arabic.

The iſlanders have almoſt no ideas of religion. They live without any publick worſhip, and are generally deſtitute of the knowledge of reaſonable beings. They, however, acknowledge the exiſtence of good and bad ſpirits; but according to their opinion theſe ſpirits are corporeal, and have each two or three wives. They believe them to be celeſtial beings, different from thoſe which inhabit this world.

This is the fooliſh ſyſtem traditionally handed down from their fathers. The oldeſt of theſe ſpirits Sabucour, whoſe wife is called Halmecul, who had a ſon, whom they call Eltulep, which in their language ſignifies the great ſpirit, and a daughter called Ligobund. The ſon married Letenhieuel, who was born in the iſle of Ulcea. She died in the flower of her age, and her ſoul forthwith aſcended into heaven. Eltulep had a ſon by her, called Lugueileng, which ſignifies the middle of heaven. He is rever'd as the great lord of heaven, of which he is preſumptive heir.

Eltulep, however, not ſatisfied with one child, adopted Reſchahuileng, a very accompliſhed man, and a native of Lamaree. They ſay, that being diſguſted at this world he aſcended into heaven, in order to enjoy the pleaſures of his father; that his mother is now in Lamaree, in a decrepit old age; and that he deſcended from heaven to the middle region of the air, in order to converſe with his mother, and communicate the heavenly myſteries to her.

Ligabund, ſiſter of Eltulep, finding herſelf in the middle of the air, deſcended to the earth, and brought forth three children. She was ſurprized to find it parched and barren; but at her powerful command it was covered with herbs, flowers, and fruit-trees. She enriched it with all kinds of verdure, and peopled it with rational creatures.

In this infancy of the world death, according to them, was unknown, ſince it was only a ſhort ſleep. People quitted life on the laſt day of the decreaſe of the moon, and as ſoon as ſhe again appeared on the horiſon, they wak'd, as it were, from a pleaſant ſleep. But one Erigiregers, an evil ſpirit, who ſported with the happineſs of men, procured a kind of death, againſt which there was no remedy, ſo that when people died, they remained for ever dead. They alſo call him Elus-melabut, which in their language ſignifies a malevolent ſpirit; whereas they call the other ſpirits Elus-melatus which ſignifies benevolent ſpirits. Among the number of bad ſpirits they place one Merogrog, who being baniſhed from heaven for his miſbehaviour, firſt brought fire into the world.

Langueileng, Son of Eltulep, had two wives, the one in heaven, by whom he had two children, Carrer and Melibiau, and the other on this earth, born at Folalu, in the province of Hougoleu, by whom

whom he had a ſon called Oulefta. This young man knowing that his father was a celeſtial ſpirit, and being impatient to ſee him, like Icarus, took flight to heaven; but he had no ſooner mounted into the air, than he fell down. Tho' this fall diſcouraged him ſo much as to make him bitterly lament his fatal deſtiny, yet he did not deſiſt from his attempt. He kindled a great fire, by the ſmoke of which he was a ſecond time carried up into the air, and conveyed into the arms of his father.

The ſame Indians ſay, that in the iſland of Folalu there is a ſmall freſh-water pond in which the gods bath themſelves; and out of reſpect to this ſacred bath, none of the iſlanders dare approach it, for fear of incurring the diſpleaſure of their gods. This ſtory is not unlike that of Diana and Acteon, who incurred the diſpleaſure of that goddeſs by his deſire of ſeeing her in her bath. They think that the ſun, moon, and ſtars have reaſonable ſouls, and are inhabited by numberleſs celeſtial beings. This notion favours of the fables of Homer, and the errors of the Origeniſts.

This is the doctrine of the inhabitants of the Caroline iſlands, but they are not diſtractedly fond of it; for tho' they acknowledge all theſe fabulous deities, yet they have neither temples, idols, ſacrifices, offerings, nor any external worſhip. They only pay a ſuperſtitious worſhip to ſome of their dead. They throw their carcaſſes as far as they can into the ſea, to ſerve as food to the tiburrons and whales. But when any perſon of diſtinction dies, or any one whom they loved, they perform his obſequies with pomp, and great demonſtrations of grief.

As ſoon as the perſon dies, they paint all his body yellow. The friends and relations flock

about the corpſe to bewail the common loſs. On this occaſion nothing but hideous cries and groans are heard. Theſe are ſucceeded by a profound ſilence, and a woman with a voice interrupted by ſighs, pronounces the funeral elegy of the deceas'd. She extols his beauty, his nobility, his agility in dancing, his ſkill in fiſhing, and all his other valuable qualities. Thoſe who want to give more ſenſible proofs of their grief, cut off their hair and their beard, and throw them upon the corpſe. They obſerve a rigid faſt all that day, but eat heartily at night.

Some of them bury the dead in a ſmall ſtone building in their own houſes, while others inter them far from their habitations, and incloſe the grave with a ſtone wall. They place ſeveral kinds of aliments near the deceaſt, being perſuaded that his ſoul ſucks and is nouriſhed by them.

They believe that there is a paradiſe, where the virtuous are rewarded, and a hell where the wicked are puniſhed. They ſay that the ſouls of thoſe who go to heaven, on the fourth day return to the earth, and remain inviſible among their relations.

There are prieſts and prieſteſſes among them, who pretend to have a commerce with the ſouls of the deceaſt. Theſe prieſts with full authority declare who go to heaven, and who to hell. They honour the firſt as beneficent ſpirits, and call them Tahuput, which ſignifies holy patron. Every family has their Tahuput, to whom they addreſs themſelves in their exigencies. If they are ſick, undertaking a journey, going to fiſh, or employed in the culture of their lands, they invoke their Tahuput, and of him aſk for the reſtitution of their health, the ſucceſs of their journey, the abundance

of

of their fiſh, and the fertility of their ground. They make preſents to him, which they ſuſpend in the houſe of their Tamoles, either from intereſt to obtain the favour they aſk of him, or from gratitude to thank him for the kindneſſes he has done them.

The inhabitants of the iſle of Yap have a more ridiculous and barbarous worſhip, ſince a kind of crocodile is the object of their veneration. There are among them inchanters who pretend to have a commerce with the evil ſpirit, and by his means procure diſeaſes and even death to thoſe they want to get rid of.

The plurality of wives is not only permitted to theſe iſlanders, but is alſo look'd upon as a mark of honour and diſtinction. They ſay that the Tamol of the iſland of Huogolen had nine wives. Tho' they abhor adultery as a great crime, yet he who is guilty of it obtains a pardon by making ſome preſent to the huſband of the woman with whom he committed it.

The huſband may divorce the wife when ſhe violates the conjugal ties. The wife may alſo divorce the huſband, when he ceaſes to be agreeable to her. In this caſe they have certain laws for the diſpoſal of the effects. When a man dies without iſſue his widow marries his father.

When they go a fiſhing they take no proviſion in their barks. Their Tamoles aſſemble in February, and judge by way of lot whether the fiſhing will be happy and plentiful. This lot conſiſts in certain knots which they make on palm-tree leaves. Theſe they count one after another, and the odd or even number determines the good or bad ſucceſs of the enterprize.

Notwithſtanding the rudeneſs and barbarity of theſe iſlanders, they have a certain policy which

ſhews them to be more rational than moſt of the other Indians, who have little more than the human form. The authority of the government is divided among ſeveral noble families, the chiefs of which are called Tamols. There is alſo in each province a principal Tamol, to whom all the reſt are ſubject.

Theſe Tamols let their beards grow very long in order to procure the greater reſpect. They command in an arbitrary manner, ſpeak little, and affect a grave and ſerious air. When a Tamol gives an audience he ſits on a high table. The people as ſoon as they come in ſight of him walk with their heads as low as their knees, and when they are come quite to him they ſit down on the ground, and with down-caſt eyes receive his orders with the moſt profound reſpect.

When the Tamol diſmiſſes them they retire bending their bodies in the ſame manner, till they are entirely out of his preſence. His words are rever'd as ſo many oracles. A blind obedience is paid to all his orders; and people kiſs his hands and feet when they aſk any favour of him. The ordinary houſes of the iſlanders, are only low huts covered with palm-tree leaves. Theſe of the Tamols are built of wood, and adorn'd with ſuch paintings as the natives can produce.

They do not puniſh crimes either by impriſonment, or the infliction of corporal puniſhment, but only baniſh the criminals into another iſland. In every town there is a houſe for the education of boys, and another for that of girls; but they only learn ſome vague principles of aſtronomy, on account of their uſe in navigation. The maſter has a globe on which the principal ſtars are marked, and

teaches

teaches his ſcholars the point of the compaſs by which they ought to ſteer.

The principal occupation of the men is building barks, fiſhing, and tilling the ground. The employment of the women conſiſts in the management of the family, aſſiſting their huſbands when they ſow the ground, and preparing a kind of wild plant, and a tree call'd balibago for making ſtuffs. As they have no iron, they make uſe of wedges and hatchets of ſtone to cut down the wood; if by chance any foreign veſſel ſhould leave any pieces of iron, they belong to the Tamols, who order utenſils to be made of them in the beſt manner poſſible. Theſe utenſils are a fund from which the Tamols reap a conſiderable advantage, ſince they lend them out at a very high rate.

They bath themſelves in the morning, at noon, and in the evening. They go to reſt at ſun-ſet, and get up early in the morning. The Tamol never goes to ſleep without a concert of muſic form'd by a croud of young people, who aſſemble round his houſe, and in their manner ſing certain ſongs, till they are ordered to deſiſt.

During the night, they from time to time aſſemble, and dance and ſing before the houſe of their Tamol. They dance to the voice, for they have no inſtrumental muſic. The beauty of their dancing conſiſts in the exact uniformity of the motions of the body. The men place themſelves oppoſite to each other. After this they move their heads, their arms, their hands and their feet in concert. The ornaments with which they adorn themſelves, give, in their opinion, a new beauty to this kind of dance. Their heads are cover'd with feathers or flowers. They have aromatic herbs hanging from their noſtrils, and palm leaves curiouſly interwoven, fix'd to their ears; on their arms,

arms, hands and feet, they have other ornaments proper to them.

The women have a kind of diverſion more ſuited to their ſex. They ſet themſeves down, and looking on each other, begin a pathetic and moving ſong, accompanying the ſound of their voices with the motions of their heads and arms, for which reaſon, this diverſion is in their language call'd tanger-ifaifil, which ſignifies the complaint of the women.

At the end of the dance, when the Tamol affects to be liberal, he holds up in the air a piece of ſtuff, which he ſhews to the dancers, and which is given to him who firſt lays hold of it.

Beſides dancing, they have ſeveral other diverſions, in which they give proofs of their dexterity and ſtrength, in handling the ſpear, throwing ſtones and balls up into the air, and each ſeaſon has a diverſion peculiar to itſelf.

Whale-fiſhing is a charming ſpectacle to theſe iſlanders. Ten or twelve of their iſlands diſpos'd in a circle, form a kind of harbour where the ſea enjoys a perpetual calm. When a whale appears in this gulph, the iſlanders forthwith getting into their canoes, and keeping toward the main ſea, advance gradually, frightning the animal, and driving it before them, till they have got it into the ſhallow water, not far from land. Then the moſt ſkilful of them throw themſelves into the ſea, and ſtrike their ſpears into the whale, while others intangle him with large ropes, which are fix'd on the land. Then there are loud acclamations of joy, among a numerous crowd of people, whoſe curioſity has brought them thither. They drag the whale to land, and the labour of the day is concluded with a great feaſt.

When there are any enmities among theſe iſlanders, they generally appeaſe each other by ſome pre-

preſents. 'Tis thus that ſingle men determine their quarrels; but when the enmities are public, between two boroughs, for inſtance, nothing but war can put an end to them. They have no other arms but ſtones, and ſpears arm'd with fiſh-bones. Their method of fighting reſembles a duel, ſince only one man engages with another.

When the differing parties reſolve to come to a deciſive action, they aſſemble in a large field, where the troops on both ſides form a ſquadron of three ranks. The youth compoſe the firſt rank, the ſecond conſiſts of thoſe of a higher ſtature, and thoſe moſt advanc'd in years form the third. The combat begins in the firſt rank, where they fight man to man with ſtones and ſpears. When any one is wounded ſo as to retire, his place is fill'd by one of the ſecond rank, and if he is alſo diſabled, by on of the third. The war is terminated by triumphal arches, rais'd by the victors, who inſult over the vanquiſh'd.

The inhabitants of the iſle of Ulcea, and of the adjacent iſlands, are more civiliz'd and reaſonable than the others. Their air and manners denote greater decency. They have a certain gaity of ſpirit, but are reſerv'd and circumſpect in their words. They are extremely compaſſionate, and ready to commiſerate the infirmities and miſeries of their neighbours.

They have a great many mungrels, and ſome mulattos and negroes, whom they employ as their ſervants. It is probable that the negroes come from New Guinea. As for the whites, their origin in this part is as follows.

Martin Lopez, commander of the firſt veſſel, which ſail'd from New Spain to the aſſiſtance of the Philippine iſlands in the year 1566, conſpired with twenty eight more, to put the reſt of the crew

crew into a desart island, make themselves masters of the ship, and go a pyrating on the coasts of China. The plot, however, was discover'd, and, to prevent the design of these ruffians, the crew left them on an island of Barbary, situated to the east of the Marian islands. It is not to be doubted, but these rebels were convey'd into one of the Caroline islands, where they married the Indian women, who brought forth a set of mungrels who have multiplied extremely in these islands.

These islanders live entirely on fruits, roots, and fish. They have hens, and other birds, but no quadrupeds. The soil produces neither rice nor wheat, nor barley, nor Indian corn. In these islands there are many woods, the timber of which is excellent for building ships.

CHAP. XV.

Of the luminous particles observ'd on the surface of the sea; of the sea-rainbow, and the exhalations form'd in the night-time.

WHEN a ship is under full sail, we often see a great light in her rake, that is in the water she has run thro', and, as it were, broken in her passage. Those who do not look narrowly at this light, often attribute it to the moon, the stars, or the lanthorn on the stern. But by a little attention, this mistake is easily rectified, since the light is greatest when the moon is under the horizon, when the stars are cover'd by clouds, when the candle in the lanthorn is extinguish'd, and when no other light appears on the surface of the sea.

This light is not always equal, since, on some occasions, it is hardly discernible; sometimes it is clear,

clear, and at others languid ; ſometimes it is far extended, and at others not.

This light is ſometimes ſo great, that we may read by it, nine or ten feet above the ſurface of the water. As for its extent, ſometimes the whole rake appears lumino us for the ſpace of thirty or forty feet ; but the light decreaſes in proportion as it is farther from the ſhip.

Sometimes we may in the rake eaſily diſtinguiſh the luminous from the obſcure parts ; on which occaſion the rake appears like a beautiful river of milk.

When we can diſtinguiſh the luminous from the other parts, we perceive that they are not all of the ſame figure, ſince ſome are only ſparks, while others appear as large as the ſtars do to us. Some are globular, and one or two lines in diameter. Others are globes as large as a man's head. Theſe luminous bodies are often form'd into ſquares, three or four inches long, and one or two broad. Sometimes theſe bodies of different figures are ſeen at once. Sometimes the rake of the veſſel is full of luminous vortices, and oblong ſquares. At other times, when the motion of the veſſel is ſlow, theſe vortices ſuddenly appear and diſappear like lightning.

Not only the rake of a ſhip produces this light, ſince the motion of fiſh affords a light ſufficient to diſtinguiſh their bulk and ſpecies. Sometimes a numerous ſhoal of theſe fiſh, when ſporting in the ſea, excite a kind of artificial, but very agreeable fire. Very often a rope oppos'd to the motion of the waves, is ſufficient to render them luminous.

If ſea-water is but ſtirr'd in the dark, we find an infinite number of ſhining particles in it. If we dip a piece of linen in it, and wring it in the dark,

dark, we ſee the ſame thing, and alſo perceive a number of ſparks flying out of it, when we but ſhake it after it is half dry.

When one of the ſparks is form'd, it laſts a long time; and if it falls on any ſolid body, ſuch as the edge of a veſſel, it will laſt for ſeveral hours.

It is not always when the ſea is moſt agitated, or when the ſhip goes faſteſt, that moſt of theſe ſparks appear. Neither is it the ſimple ſhock of the waves againſt each other, which produces them, ſince the action of the waves on the ſhore ſometimes generates a great quantity of them. At Braſil the ſhore ſometimes appears all on fire with theſe ſparks.

The production of them depends in a great meaſure on the quality of the water, and, generally ſpeaking, this light is greateſt, when the ſea is moſt foaming; for at full ſea the water is not every where equally pure. Sometimes a piece of linen dip'd in the ſea comes out all over glutinous. It is obſervable, that when the rake is moſt ſhining, the water is moſt viſcid and fat. A cloth dip'd in this water gives moſt light when it is mov'd.

In ſome parts of the ſea there are parcels of matter of different colours, ſometimes red and ſometimes yellow, floating on her ſurface. It appears like the ſawings of wood, and the ſailors ſay it is the fry or ſeed of the whale; of this however we cannot be certain. When water is drawn out of the ſea in thoſe parts, it is found to be very viſcid. The ſailors alſo ſay, that in the northern ſeas there are large ſhoals of this fry, which ſometimes appear quite luminous in the night-time, even when they are not agitated by the motion of any ſhip or fiſh.

To

To prove that the water is the more luminous in proportion to its viſcidity, the following experiment has been made. They one day catch'd a fiſh, which ſome took to be a bonite. The inſide of the throat of this fiſh, in the night-time, appeared like a live coal; ſo that without any other light, a perſon could have read as well as by the moſt luminous rake. The throat was full of a viſcid matter, with which, when a bit of wood was beſmear'd, it forthwith became luminous; but as ſoon as the humour was dried, the light was extinguiſh'd.

Let us now examine whether all theſe particularities may be applied to the ſyſtem of thoſe who take the principle of this light to be the motion of the ſubtil matter, or of globules occaſion'd by the violent agitation of the ſalts.

Let us add ſome obſervations on the iris, or rain-bow of the ſea. 'Tis principally after violent tempeſts that ſuch rain-bows appear with greateſt ſplendor. 'Tis true the celeſtial has this advantage over the ſea iris, that its colours are more lively, diſtinct and various. In the ſea iris there are hardly more than two colours, a dark yellow towards the ſun, and a pale green on the oppoſite ſide. The other colours are not lively enough to be diſtinguiſh'd. In recompence for this, the ſea rain-bows are much more numerous, ſince at mid-day we ſometimes ſee twenty or thirty of them at a time, in a ſituation oppoſite to that of the celeſtial iris, that is, with their arches turn'd towards the bottom of the ſea.

We muſt not forget theſe exhalations, which being inflam'd in the night-time, form a ſtreak of light in the air. Theſe exhalations in the Indies leave a much more extenſive ſtreak than in Europe. Some of them ſeem to be real rockets. They

They appear very near the earth, and diffuſe a light like that of the moon on the firſt days of her Increaſe. Their fall is ſlow, and they deſcribe in a curve line falling.

CHAP. XVI.

Of the origin of muſk, where it is form'd, and of the nouriſhment of the animal which produces it.

HITHERTO people have talk'd differently of the origin of muſk. Some authors pretend, that it is form'd in the navel of the animal; but they are certainly miſtaken, ſince it is form'd in the bladder. This animal is a ſort of ſmall goat, which the Chineſe call hiang-tchang-tſe, that is to ſay, the odoriferous or muſk-goat. Tchang-tſe ſignifies goat, and hiang properly ſignifies odour.

On the eaſt of Peking is a long ridge of mountains, where there are great numbers of theſe muſk-goats. The people who kill them ſometimes ſell the fleſh by itſelf, and diſpoſe of the muſk to thoſe who deal it it. They cut out the bladder of this animal, and leſt the muſk ſhould evaporate, tie it tight about the neck, and when they want to preſerve it for a curioſity, they dry it.

The muſk adheres to the internal coat of the bladder, in form of a ſalt. That in grains is the moſt valuable, and is call'd theou-panhiang. The other, which is call'd mi-hiang, is leſs eſteem'd, and much ſmaller in the grain. The female bears no muſk, or at leaſt what in her reſembles that ſubſtance has no ſmell.

Ser-

Serpents are the moſt common food of theſe goats; and tho' theſe ſerpents are of an enormous bulk, yet the goats eaſily kill them, becauſe as ſoon as a ſerpent is within a certain diſtance of a goat, the former is by the ſmell of the muſk ſo ſtupified, that it can move no more.

This is ſo evident, that the country people who go to ſeek for wood, or make char-coal on the mountains, have no better ſecret to preſerve themſelves from the ſtings of theſe ſerpents, which are very dangerous, than to carry two or three grains of muſk about them. In this caſe they ſleep ſecurely after dinner, and if any ſerpent ſhould come near them, it is forthwith laid aſleep by the ſmell of the muſk, and can go no farther.

CHAP. XVII.

The method of giving a luſtre to the gold laid on porcelain; the different kinds of varniſhes and colours given to the porcelain; the method of preparing theſe varniſhes and colours; new deſigns of porcelain works; manner of emboſſing porcelain.

AS gold laid upon porcelain is, in proceſs of time, effac'd, and loſes a great deal of its luſtre, they reſtore its ſplendor, by wetting the porcelain with pure water, and rubbing it with an aggate ſtone; but they muſt take care to rub the veſſel in the ſame direction, for example, from the right to the left.

The lips of the porcelain are principally ſubject to ſcale off. To remedy this inconveniency, they

fortify them with a certain quantity of bamboo-coal pounded, which they mix with the varnish that is laid on the porcelain, and which gives it a grey or cineritious colour. Then with the pincers they make a border of this mixture round the porcelain already dry, putting it on the wheel. When it is time they apply the varnish to the border as they do to the rest of the porcelain, and when it is bak'd, the edges are extremely white. As there is no bamboo in Europe, its place may be supplied by willow coal, or rather that of elder, which more approaches to bamboo.

It is to be observ'd, first, that before the bamboo is reduc'd to coal, its green skin must be taken off, because the ashes of that skin make the porcelain break in the furnace. Secondly, That the workman ought not to touch the porcelain with greasy or oily hands, since by this means the part touch'd would infallibly crack in the baking.

In the fourth chapter, when speaking of the colours laid on the porcelain, we have said, that there was a red one blown upon the porcelain, and explain'd the manner of applying that colour. But we did not there observe, that there was also a blue one blown, in which it is easier to succeed. The Chinese workmen agree, that if it was not too expensive, they could also blow gold and silver upon porcelain, of a black or blue ground, that is, diffuse gold or silver equally all over it. This sort of porcelain of a new taste could not fail to please.

They blow the varnish as well as the red. They have for the emperor made works so delicate and fine, that they were oblig'd to place them on cotton, because they could not handle pieces so tender, without danger of breaking them; and as it is not possible to plunge them in the varnish, without touching

ouching them with the hand, they blow the varniſh upon them.

'Tis to be obſerv'd, that in blowing the blue, the workmen take a precaution to preſerve the colour, which does not fall on the china, and to loſe as little of it as poſſible. This precaution is to place the veſſel on a pedeſtal placed over a large piece of paper, which ſerves for ſome time. When the azure is dry, they take it off, by rubbing the paper with a ſmall bruſh.

They have found a new ſubſtance proper to enter the compoſition of porcelain. This is a ſtone or ſpecies of chalk called hoache, which the Chineſe phyſicians uſe in a ptiſan, which they ſay removes wearineſs, is aperient and refreſhing. They take ſix parts of this ſtone, and ſix of liquorice, which they pulveriſe. They put half a ſpoonful of this powder into a large draught of freſh water, which they order the patient to drink. They pretend, that this ptiſan refreſhes the blood, and temperates internal heats. The workers in porcelain have thought fit to employ this ſtone inſtead of the kaolin before-mentioned. Perhaps ſuch parts of Europe, where kaolin cannot be found, may furniſh the ſtone hoache. It is call'd hoa, becauſe it is glutinous, and reſembles ſoap.

The porcelain made with the hoache is rare, and much dearer than the other kinds. It has an extremely fine grain, and with reſpect to the work of the pencil, if we compare it with the ordinary porcelain, it is almoſt what vellum is to paper. Beſides, this porcelain is extremely light, which ſurpriſes a perſon accuſtom'd to handle other porcelains. It is alſo more brittle than the common ſort, and the true degree of baking it is very hard to be gueſs'd at. Some workmen do not uſe the hoache for the body of their work, but make a

thin glue of it, in which they dip the porcelain when dry, before it receives the colours and the varniſh, by which means it acquires ſome degree of beauty.

They uſe the hoache in the following manner. Firſt, when they have taken it from the mine, they waſh it with river or rain-water, to ſeparate it from the yellow earth which adheres to it. Secondly, they break it, and put it into a veſſel to diſſolve, after which they prepare it in the ſame manner with the kaolin. They affirm, that porcelain may be made of the hoache alone, without any other mixture. Some Chineſe workmen however ſay, that to eight parts of hoache they put two of petunſe, and that in other reſpects they proceed in the ſame manner as in making ordinary porcelain with petunſe and kaolin. In this new ſpecies of porcelain the hoache is in place of the kaolin, but it is much dearer than the other. The load of kaolin coſts only twenty pence, whereas that of hoache comes to a crown. Thus it is not ſurpriſing, that this ſhould be ſold dearer than the common porcelain.

There is another obſervation to be made on the hoache; when they prepare it, and form it into ſmall ſquares like the petunſe, they diſſolve in water a certain quantity of theſe ſquares, of which they form a very clear glue or cement. In this they dip the pencil, and draw various deſigns on the porcelain, and when it is dry they give it the varniſh. When the porcelain is bak'd we perceive theſe deſigns to be of a different white from the reſt. They ſeem to be a delicate ſteam ſpread on the ſurface. The white of the hoache is call'd ſiamyave, or ivory white.

They paint figures on porcelains with chekao, as well as with hoache, which gives it another ſpecies

ſpecies of white colour; but the chekao has this peculiar to itſelf, that before it is prepar'd like the hoache, it muſt be toaſted on the hearth, after which it is broken, and prepar'd in the ſame manner with the hoache. They throw it into a veſſel full of water, and agitate it there. They at different times take off the cream which floats upon it; and when all this is done, they find a pure maſs, which they employ in the ſame manner as the purified hoache. The chekao cannot ſerve as the body of the porcelain. Hitherto nothing but the haoche has been found to ſupply the place of the kaolin, and give ſolidity to the porcelain. If, according to the Chineſe workmen, they were to put more than two parts of the petunſe to two parts of the hoache, the porcelain would infallibly be deſtroy'd in baking, becauſe its parts are not ſufficiently united.

We have not as yet ſpoken of a kind of varniſh call'd tſe-kin-yeou, that is, burniſh'd varniſh of gold. We might rather call it varniſh of a bronze, or coffee-colour, or of the colour of a wither'd leaf. This varniſh is of a late invention, and in order to make it, they take common yellow earth, and manage it in the ſame manner they do the petunſe. When it is prepar'd they employ only the moſt delicate part of it, which they throw into water, and which forms a glue as liquid as the ordinary varniſh, call'd peyeou, which is made of pieces of rocks. Theſe two varniſhes, the peyeou, and the tſe-kin are mix'd together, and for this purpoſe they ought to be render'd equally liquid. Of this they make a tryal, by plunging the petunſe into both; and if each of the varniſhes penetrates its petunſe, they judge them equally liquid, and proper to incorporate with each other. They alſo mix with the tſe-kin varniſh or oil of quick lime,

and aſhes of ferns, prepar'd in the ſame manner as directed in the fourth chapter, and of the ſame liquidity with the peyeou; but they mix more or leſs of theſe varniſhes with the tſe-kin, according as they want it deeper or fainter. This may be known by ſeveral tryals; for example, mix two cupfuls of the tſe-kin, with eight of the peyeou; then to four cupfuls of this mixture add one cupful of the varniſh of lime and fern.

'Tis not long ſince they found the ſecret of painting the porcelain with the tſoui, which is of a violet colour, and gilding it. They have tried to make a mixture of gold leaf with the varniſh and powder of flints, which they applied in the ſame manner as the red, with oil; but this varniſh does not ſucceed, and they have found that the varniſh of the tſe-kin had more beauty and ſplendor.

Formerly they made cups to which they gave the outſide a gilded varniſh, and the inſide the pure white varniſh. They afterwards varied, and to a cup or veſſel they intended to varniſh, they in one or two parts applied a ſquare or circle of paper; and after having laid on the varniſh, they rais'd the paper, and painted the unvarniſh'd ſpace red or blue. When the porcelain was dry, they gave it the uſual varniſh, whether by blowing or otherwiſe. Some fill theſe empty ſpaces with a ground of blue or black, in order to apply the gilding after the firſt baking. In this reſpect we may imagine ſeveral combinations according to our fancy.

They have alſo invented a new ſort of porcelain which is of an olive colour, and which they call long-tſiven. This ſpecies was formerly called tſinko, the name of a fruit among them, whoſe colour reſembles that of olives. This colour is given to the porcelain, by mixing ſeven cups

cups of the varniſh call'd tſe-kin, with four cups of peyeou, two cups, or thereabouts, of the oil of quick-lime and ferns, and one of tſouyeou, which is an oil obtain'd from flints. The tſouyeou makes a large quantity of veins appear on the porcelain. When they uſe it alone, the porcelain is brittle, and without ſound when ſtruck; but when it is mix'd with the other varniſhes, it is variegated by beautiful ſmall veins, and neither renders the porcelain leſs ſonorous nor more brittle than the common ſort.

We muſt not omit one thing, which is, that before they give the varniſh to the porcelain, they poliſh it, and ſmooth all its ſmalleſt inequalities. This is done by a pencil made of very fine feathers, which they moiſten with water, and gently paſs it over the whole; but it is principally with the fine china that they uſe ſo much pains.

The ſhining or reflecting black is given to the porcelain by plunging it in a liquid mixture compos'd of prepar'd azure. In this caſe it is not neceſſary to employ the fineſt azure, but the compoſition muſt be a little thick, and mix'd with the varniſh of peyeou and tſe-kin, adding a little of the oil of lime, and of the aſhes of fern. For example, with ten ounces of azure pounded in a mortar, we muſt mix one cup of tſe-kin, one ½cup of peyeou, and two cups of the oil of ferns, burnt with quick-lime. This mixture carries its varniſh with it, ſo that it is not neceſſary to give it another. When they bake this ſpecies of black china, they place it in the middle of the furnace, and not near the vault where the fire has the greateſt force.

It is not true, that the red laid on with oil, called the yeou-ci-hunc, is drawn from the red of copperas, ſuch as that which is employ'd in painting the rebak'd porcelain red. This red laid on with oil is made of the grains of red copper, and of

the powder of a certain ſtone or flint of a rediſh caſt. 'Tis thought that this ſtone is a kind of alum employed in medicine. The whole is pounded in a mortar, along with the urine of a young man, and the oil of peyeou. This mixture is applied to the porcelain, before it is bak'd, and they give it no other varniſh. They muſt take care during the baking, that the red colour fall not to the bottom of the veſſel. The Chineſe workmen ſay, that when they want to give this red to the porcelain, they do not make uſe of the petunſe to form it, but that in its ſtead, they employ together with the kaolin a yellow earth, prepar'd in the ſame manner with the petunſe. It is probable that ſuch an earth is more proper to receive this kind of colour.

Perhaps the reader will be glad to know how the grains of copper are prepar'd. In China there is no ſilver coin, ſince in commerce they uſe it in lumps, and there are a great many pieces bad. There are however certain occaſions on which it is neceſſary to refine theſe bad pieces, when, for example, taxes or ſimilar contributions are to be paid. Then they have recourſe to workmen, whoſe only buſineſs it is to refine the ſilver in furnaces made for that purpoſe, and to ſeparate it from the copper and lead. Before the melted copper is harden'd and congeal'd, they take a ſmall broom, which they dip ſlightly in water; then by ſtriking on the handle of the broom, they ſprinkle the melted copper with water. A pellicule is form'd on the ſurface, which they take off with iron pincers, and plunge it in cold water, where the grains are form'd, and multiplied in proportion as they reiterate the operation. It is evident, that if they employ'd aquafortis to diſſolve their copper, the powder would be more proper for making the colour

lour of which we ſpeak. But the Chineſe are unacquainted with aquafortis and aqua regia, and their inventions are all extremely ſimple.

They have executed deſigns which were thought impracticable. Theſe are urns three feet high and more without the cover, which riſes a foot high like a pyramid. Theſe urns conſiſt of three different pieces, ſo elegantly join'd, that they ſeem to make but one.

There are alſo pieces of porcelain which they call yao-pien, which ſignifies tranſmutation. This tranſmutation is caus'd either by the defect or exceſs of the heat, or by other cauſes which are not eaſily diſcover'd. Theſe pieces which have not ſucceeded agreeably to the intention of the workman, and are the pure effects of chance, are not leſs beautiful and valuable than the others.

A workman intended to make veſſels with red flowers blown; a hundred pieces were entirely loſt, while only one came out of the furnace, perfectly like a ſpecies of aggate.

If they would run the riſk, and be at the expence of different tryals, they might effectually diſcover the art of making what chance at that time produced. For this reaſon they have thought fit to make porcelain of a ſhining black, which they call oukom. The caprice of the furnace has determin'd them to this reſearch, in which they have ſucceeded.

When they want to give a varniſh, which renders porcelain extremely white, they add to thirteen cups of peyeou, one cup of the oil of fern aſhes as liquid as the peyeou. This varniſh is ſtrong, and ought not to be given to the porcelain which is to be painted blue, becauſe after baking, the colour would not appear thro' the varniſh. The porcelain which has got the ſtrongeſt varniſh, may without

out any dread be expos'd to the greateſt heat of the furnace. Thus they bake it all white, either with a view to keep it in that colour, or to gild it, or paint it in different colours, and then bake it a ſecond time. But when they want to paint porcelain blue with a deſign that the colour ſhould appear after the baking, they only take ſeven cups of peyeou, with one cup of varniſh, or of the mixture of lime and fern aſhes.

'Tis to be obſerv'd in general, that the porcelain whoſe varniſh contains a great deal of fern aſhes, ought to be bak'd in the moſt temperate part of the furnace, that is, either after the three firſt ranks, or at the bottom, about a foot or a foot and a half high. If it was bak'd at the top of the furnace, the fern aſhes would be fus'd with precipitation, and fall to the bottom of the porcelain. The caſe is the ſame with the red laid on with oil, the blown red, and the long-tſiven, on account of the grains of copper contain'd in theſe varniſhes; on the contrary, in the top of the furnace they bake the porcelain, to which they have only given the tſoui-yeou, which is the varniſh that gives the porcelain ſo many veins, that it ſeems to conſiſt of pieces join'd together.

The red of copperas, laid on the rebak'd porcelains, is made in the manner mention'd in the fourth chapter, with copperas call'd tſao-fan. But before we give the method of compoſing this colour, we ſhall firſt explain the proportion and meaſure of the Chineſe weights.

The kin or Chineſe pound conſiſts of ſixteen ounces, which they call leams or taels.

The leam or tael is a Chineſe ounce.

The tſien or mas is the tenth part of the leam or tael.

The

The fuen is the tenth part of the tſien or mas.

The by is the tenth part of the fuen.

The hoa is the tenth part of the by.

To a leam or tael of ceruſs they add two mas of this red. They paſs the ceruſs and the red thro' a ſieve, and mix them together dry. Then they incorporate them with water impregnated with common glue, reduc'd to the conſiſtence of mouth-glue. This glue fixes the red to the porcelain, and prevents its melting. As the colours, if laid on too thick, would produce inequalities on the ſurface, they now and then dip the pencil in water, and then in the colour which they intend to uſe.

In order to obtain a white colour, to a leam of ceruſs they add three mas and three fuen of the powder of the moſt tranſparent flint calcin'd, after having luted them in a veſſel of porcelain, which they bury in the ſand of the furnace before they heat it. This powder ought to be impalpable. They uſe ſimple water without any mixture of glue, in order to incorporate it with the ceruſs.

In order to make the deep green, they add to one tael of ceruſs three mas and three fuen of the powder of flint, with eight fuen, or near a mas of tom-hoa-pien, to make the green. They muſt waſh it well, and carefully ſeparate the grains of copper which are mix'd with it, and which are not proper for the green. They only employ the ſcoriæ, that is to ſay, the parts of the metal which are ſeparated when they work it.

As for the yellow colour, it is made by adding to a tael of ceruſs three mas and three fuen of powder of flint, and one fuen and eight by of red, which has not been mix'd with ceruſs. To make a beautiful yellow, you muſt add two fuen and a half of this primitive red.

A tael

A tael of ceruſs, three mas and three fuen of powder of flint, and two by of azure, form a deep blue of a violet caſt. Some workmen add eight by of azure.

The mixture of green and white, for example, one part of green added to two of white, makes the water-green which is very clear.

The mixture of green and yellow, for example, two cups of deep green added to one of yellow, produces the colour, which reſembles a leaf ſomewhat faded.

In order to produce black, they dilute the azure in water, but the ſolution muſt be very thin. They mix with it a little common glue macerated in lime water, and boiled to the conſiſtence of mouth-glue. When with this black they have painted the porcelain which they intend to bake a ſecond time, they cover the black parts with white. In the baking, this white is incorporated with the black, juſt as the common varniſh is with the blue of the common porcelain.

There is another colour called tſin, which is prepared of a ſtone or mineral reſembling Roman vitriol. It is probable that this ſubſtance is taken from ſome lead mine, and that carrying imperceptible particles of the lead along with it, it inſinuates itſelf into the porcelain without the help of the ceruſs, which is the vehicle of the other colours given to the rebak'd porcelain.

'Tis of this tſin that they make the deep violet. It is found at Cantong and at Pekin, but that found at the laſt of theſe places is by far the beſt. It is ſold at ſeven ſhillings and ſix pence a pound. The tſin is fus'd, and when it is ſö, ſilver-ſmiths by way of enamel lay it upon ſilver works. They will put, for inſtance, a ſmall circle of tſin about a ring, or they will enchaſe it by way of a ſtone.

ſtone. This ſpecies of enamel comes off at laſt, but they endeavour to prevent this by laying it on a ſlight ground of mouth or common glue.

The tſin, as well as the other colours we have mentioned, is only uſed for the rebaked porcelain. The tſin is prepared in the following manner. They do not toaſt it as they do the azure, but break it and reduce it to a very fine powder. Then they put it into a veſſel full of water, which they agitate a little. Then they pour out the water, in which there is ſome naſtineſs, and keep the cryſtal which has ſunk to the bottom of the veſſel. This maſs thus diluted loſes its beautiful colour, but the tſin recovers its violet colour when the porcelain is bak'd. The tſin may be kept as long as they pleaſe. When they want to paint any porcelain veſſel with this colour, they muſt dilute it with water, mixing a little common glue with it, which by ſome is thought unneceſſary; but this muſt be determined by experience.

In order to gild or ſilverize the porcelain, they add two fuen of ceruſs to two mas of diſſolved gold or ſilver leaf. The ſilver upon the varniſh tſe-kin has a beautiful ſplendor. If they gild ſome, and ſilverize others, they do not leave the ſilveris'd work ſo long as the gilt in the ſmall furnace, otherwiſe the ſilver would diſappear before the gold obtains the degree of baking neceſſary to give it its luſtre.

There is another ſort of coloured porcelain, which ſells dearer than thoſe painted with the colours we have mentioned. Perhaps the account I am to give of it may be of ſome uſe for perfecting the Dutch ware, tho' we cannot obtain the perfection of the Chineſe porcelain.

To make theſe kinds of works, it is not neceſſary that the ſubſtance employed ſhould be extreme-

ly

y fine. They take cups which have been already bak'd in the large furnace, without being varnished, which are consequently all white, and have no lustre. They colour them by plunging them in the vessel where the colour is prepared, when they want them of the same colour. But if they want them of different colours, such as the works called hoan-tou-houan, which are divided into a kind of squares, some of which are yellow and others green, they apply these colours with a large pencil. This is all the ornament they give to this species of porcelain, only after the baking, they lay a little vermilion on certain places; as for example, on the beaks of certain birds; but this colour is not baked becauſe the fire would deſtroy it, for which reaſon it does not laſt long. When they have applied the other colours they rebake the porcelain in the large furnace, with other porcelains which have not been bak'd before. It muſt be placed at the bottom of the furnace, and below the air-vent, where the fire has leſs activity; becauſe an intenſe fire would deſtroy the colours,

The colours proper for this ſort of porcelain are prepared in the following manner. In order to make the green they take tam-hoa-pien, ſalt-petre, and powder of flint. When they have reduced them ſeparately into an impalpable powder, they dilute and mix them together with water.

The moſt common azure together with ſalt-petre, and powder of flint, forms the violet.

The yellow is prepared by adding three mas of the red of copperas to three ounces of the powder of flint, and three ounces of ceruſs.

For producing the white, to four mas of the powder of flint they add a tael of ceruſs. All theſe ingredients are to be diluted in water; and this

this is the whole of what relates to the colours of this ſort of porcelain.

When ſpeaking of the furnaces where they rebake the painted porcelain, we have obſerved, that they make piles of porcelain veſſels, puting the ſmaller into the larger, and thus ranging them in the furnace. Care muſt be taken, that the veſſels do not touch each other in the parts which have been painted; for in this caſe all the veſſels would be loſt. The foot of one cup may be ſupported by the bottom of another, tho' it be painted; becauſe the edges of the bottom of the ſmaller cup are not painted; but the ſides of one cup muſt not touch thoſe of another. Thus, when they have cups which do not eaſily enter into each other, ſuch as the long chocolate cups, the Chineſe workmen range them in the following manner.

Upon a bed of theſe porcelains laid in the bottom of the furnace, they lay a covering either of plates made of the earth with which the furnaces are built, or of the pieces of caſes for the porcelain; for in China every thing is uſed to the beſt advantage. Above this covering they lay another bed of theſe porcelains, and continue to do ſo to the very top of the furnace.

It is not true, as we have before obſerved, that they know that the painted or gilt porcelain is baked when they ſee the gold or colours ſparkle with all their luſtre. The colours are not diſtinguiſhed, till the rebak'd porcelain is become cold. They judge that the porcelain baked in the ſmall furnace is ready to be taken out, when looking thro' the aperture at the top, they to the very bottom ſee all the porcelains red with the fire, when they diſtinguiſh the pil'd cups from each other, when the porcelain has no longer thoſe inequalities

ties formed by the colours; and when the colours are incorporated in the body of the porcelain, in the ſame manner that the varniſh laid upon the beautiful azure, is incorporated with it by the heat of the large furnace.

As for the porcelain rebak'd in the large furnace, they judge that it is ſufficiently bak'd, 1ſt, When the flame which comes out is not of a very red, but rather of a whitiſh colour. 2dly, When looking thro' one of the apertures, they perceive that the caſes are all red. 3dly, When after having opened a caſe at the top, and taken a piece of porcelain out of it, they perceive when it is cold, that the varniſh and colours are in the condition in which they want them. And 4thly, When looking in at the top of the furnace, they perceive the gravel in its bottom to be ſhining. By all theſe marks, a workman judges whether the porcelain is perfectly bak'd.

When they would have the blue intirely to cover the veſſel, they uſe leao or azure prepared and diluted in water to a due conſiſtence, and in this they plunge the veſſel. As for the blown blue called tſui-tſim; they in it uſe the moſt beautiful azure prepared in the manner before mentioned. They blow it upon the veſſel, and when it is dry they lay on the ordinary varniſh either alone, or mixed with tſoui-yeou, if they would have the porcelain veined.

Some workmen upon this azure, whether blown or otherwiſe, draw figures with the point of a long needle. The needle removes as many ſmall grains of the dry azure as is neceſſary to repreſent the figure, after which they lay on the varniſh. When the porcelain is bak'd, the figures appear painted in miniature.

There

There is not ſo much labour as may be imagined, in making the porcelains on which flowers, dragons, and other ſimilar figures are emboſs'd. They firſt trace them with the graver on the body of the veſſel; then they make ſmall inciſions round them, which raiſe them; and laſtly they apply the varniſh.

The following things are to be obſerved in the manner of preparing the leao, or azure. 1ſt, Before burying it in the gravel of the furnace, where it is to be toaſted, it muſt be well waſh'd, in order to remove the earth which adheres to it. 2dly, It muſt be included in a caſe of porcelain well luted. 3dly, When it is toaſted it muſt be pounded, and paſs'd thro' a ſieve. Then they put it into a well-varniſhed veſſel, and pour boiling water upon it. After having agitated it a little, they take off the froth on the ſurface, and pour out the water by inclining the veſſel to one ſide. This preparation of azure with boiling water is to be repeated twice. After this they take the azure thus moiſt and reduced into a kind of thin paſte, and putting it into a mortar, pound it for a conſiderable time.

The azure is found in the mines of rock-coal, or in the red earths adjacent to thoſe mines. It ſometimes appears on the ſurface of the ground, and this is an infallible ſign, that by digging farther, more of it may be found. In the mine it preſents itſelf in pieces as large as a man's thumb, but flat, and not round. The coarſe azure is pretty common, but the fine is very rare, and not eaſily diſcerned by the eye; and we muſt make tryal of it before we can judge of its value. This tryal conſiſts in painting a porcelain veſſel with it, and then baking the veſſel. If Europe produced beautiful leao or azure, and fine tſin, which is a kind of violet colour, theſe would among the Chineſe, be

commodities of great value, and eaſily tranſported, ſo that we might bring back the moſt beautiful porcelain in exchange for them. We have already obſerved that a pound of tſin is ſold for a tael and eight mas, that is, for ſeven ſhillings and ſix pence. For two taels they ſell a box of beautiful leao, which contains only ſix ounces, and this amounts to twenty pence an ounce.

They have try'd to paint ſome porcelain veſſels black with the fineſt of the Chineſe ink; but this attempt had no ſucceſs; for when the porcelain was baked it was found to be very white. As the parts of this black have not a ſufficient body, they were diſſipated by the action of the fire, or rather they had not force enough to penetrate the bed of varniſh, and produce a colour different from it.

CHAP. XVIII.

Deſcription of rhubarb and ſeveral other aromatic and medicinal plants, their virtues and uſes; the manner of preparing and uſing them; the ſkill of the Chineſe phyſicians.

THE moſt ſingular plant produced in China, is the hia-tſaa-tom-chom, which ſignifies that this plant is an herb during the ſummer, but in the beginning of winter becomes a worm. If the matter be duly conſidered, it will be found that this name has not been given to it without reaſon. Nothing better repreſents a worm three quarters of an inch long, and of a yellowiſh colour. We ſee the head, the body, the eyes, the feet on each ſide of

of the belly, and the foldings on the back diſtinctly formed. Theſe things are beſt obſerved when the plant is recent; for in time, eſpecially when it is expoſed to the air, it becomes blackiſh, and is ſoon corrupted, becauſe its ſubſtance is ſoft. This plant paſſes in China for one of the exotic kind, and is very rare, ſince few are to be ſeen except at the palace. It alſo grows in the Thibet, and is found, tho' in a ſmall quantity, on the frontiers of the province of Tſe-tcheouen, which borders on the kingdom of Thibet.

The virtues of this plant nearly reſemble thoſe aſcribed to the gen-ſeng, with this difference, that the frequent uſe of it does not produce hemorrhages, as the gen-ſeng does. It fortifies and reſtores parts weakened either by exceſs of labour, or long protracted diſeaſes. It is uſed in the following manner.

They take five drams of it whole, with its tail, and with theſe they ſtuff the belly of a tame duck, which they roaſt before a ſlow fire, and when it is ſufficiently roaſted they take out the medicine, whoſe virtue has paſſed into the fleſh of the duck; of this duck the patient eats ſo much, morning and evening, for ten days; but this remedy is not much uſed, except at court, on account of the great rarity of this precious medicine.

The ſantſi is more eaſily found, becauſe it is a plant which grows without culture in the mountains of the provinces of Yunnam, Quoecheou, Sſetchouen. It ſends out eight ſtalks which have no branches. The ſtalk in the middle is the longeſt and roundeſt. It bears three leaves, which are like thoſe of mugwort, and are fixed to the ſtalk by pretty large tails. They are not rough, but ſhining, and of a deep green colour. The ſeven other ſtalks, which are only a foot and a half high, and whoſe

bodies are triangular, riſe from the principal ſtalk, three on one ſide, and four on the other. Theſe have each but one leaf at the ſuperior extremity; for which reaſon it is called ſantſi, which ſignifies three and ſeven, becauſe the ſtalk in the middle has three leaves, and the ſeven others but ſeven among them.

All theſe ſtalks ariſe from a round root four inches in diameter. This root ſends off ſeveral others which are oblong, as large as a man's little finger, and have a hard and rough bark, but their internal part is of a ſofter ſubſtance, and of a yellowiſh colour. Theſe ſmall roots are principally uſed in medicine. The ſtalk in the middle is the only one which bears white flowers, which grow at its point in form of grapes, and blow towards the end of the ſeventh month, that is, in the month of July.

When they intend to multiply this plant, they cut the large root into ſlices, which they put into the earth about the fifteenth day of the ſpring. A month after, it ſends forth ſtalks; and at the end of three years it is as large and high as ever it will be.

The Chineſe uſe it in the following manner. About the ſummer ſolſtice, they take the ſtalk and leaves, and beat them in a mortar, in order to preſs the juice from them, which they mix with common lime reduced to powder. Of theſe they form a maſs, which when dried in the ſun, they uſe for the cure of wounds. They uſe this ſame juice mix'd with wine, to cure ſpittings of blood. But this remedy has no virtue except in the ſummer, and to thoſe who are on the ſpot; for which reaſon, towards the end of autumn, they pull up the large roots, cut off the ſmall oblong ones, and dry them in the air, in order to be tranſported into

to other provinces. The heavieſt of theſe ſmall roots, which are of a blackiſh grey colour, and grow in a dry ſoil on the coaſts, are reckoned the beſt. Thoſe which are light, of a yellowiſh colour, and grow on the edges of rivers, have little or no virtue. A dram of the powder of thoſe roots cures hemorrhages and ſpittings of blood. If we were to make an analyſis of it, we ſhould perhaps find it poſſeſſed of other no leſs valuable qualities.

The tai-hoam, or the rhubarb, grows in ſeveral parts of China. The beſt is that of Sſe-tchouen; but that which grows in the province of Xenſi, and the kingdom of Thibet, is far inferior to it. What grows elſewhere is of ſo little value, that it is not uſed. The ſtalk of the rhubarb is like the ſmall bamboos, or Chineſe canes. It is hollow and very brittle three or four feet high, and of a dark violet colour. In the ſecond moon, that is, in the month of March, it ſends forth long and thick leaves, which grow four and four on the ſame tail, looking towards each other, and forming a chalice. The flowers are of a yellow, and ſometimes of a violet colour. In the fifth moon it produces a ſmall black ſeed, as large as a millet. In the eighth moon they pull it up, and find the root large and long. That which is heavieſt, and moſt marbled in the heart, is the beſt and moſt eſteemed. This root is of ſuch a nature, as renders it very difficult to be dried.

The Chineſe, after having pulled up and clean'd the roots, cut them in pieces about two inches large, and dry them on plates of ſtone, under which they kindle fires. They turn theſe pieces till they are thoroughly dry. If they had

ovens like thoſe in Europe, they would not make uſe of theſe plates. As this operation is not ſufficient to draw out all the humidity, they make a hole in each piece, and ſuſpend them in the greateſt heat of the ſun, till they are in a condition to be kept, without being corrupted.

As to the uſe of rhubarb, the Chineſe are nearly of the ſame opinion with the Europeans. However they rarely uſe rhubarb crude and in ſubſtance; for they ſay it tears the bowels, and produces gripes; and as the Chineſe generally love better not to be cured, than to be relieved by great pain, they more chearfully take rhubarb by way of decoction, with a great many other ſimples, which they combine according to the rules of their art; but if it is neceſſary to take it in ſubſtance, they prepare it in the following manner.

They take as many pieces of rhubarb as they have occaſion for, and ſteep them twenty-four hours in rice wine (that of grapes would be better if they had any) till they are very ſoft, and can be cut into thin ſlices. Then they put upon a furnace a kind of kettle, whoſe mouth is two feet in diameter, and which diminiſhes gradually to the bottom in form of a cap. They fill this kettle with water, and cover it with an inverted ſieve made of ſmall ſlips of bark. Upon the bottom of the ſieve they lay the pieces of rhubarb, covering the whole with a piece of wood, over which they throw a felt, that the ſteam of the water may not come out. Then they heat the furnace, and make the water boil, ſo that the ſteam raiſed thro' the ſieve, penetrates the ſlices of rhubarb, and deſtroys their acrimony. At laſt this ſteam reſolving, as in an alembic, falls down into the boiling kettle, and renders the water yellow, which the Chineſe

Chineſe keep for cutaneous diſorders. Theſe ſlices muſt remain at leaſt eight hours in this circulation of the ſteam, after which they take them out, and dry them in the ſun. They repeat this operation twice, and then the rhubarb is prepared, and is of a blackiſh colour. It may be pounded and formed into purgative pills. Five or ſix drams at leaſt make a doſe, which purges gently, and without gripes. The urine is that day more copious and red than uſual, which, according to the Chineſe, denotes, that an unnatural heat is diſſipated in that way. They who have an averſion to ſo many pills, take the ſame quantity of the dried ſlices, and in an earthen or ſilver veſſel, boil them in nine ounces of water to three, which they drink warm, but ſometimes they mix ſimples with it.

This manner of preparing rhubarb produces the moſt ſalutary effects. An obſtinate conſtipation had reduced a mandarin to the greateſt extremity, and no remedies could procure him a ſtool; the patient vomited them up as ſoon as they were ſwallowed, as he alſo did rhubarb, whether taken in pills or decoction. A Chineſe phyſician made him take a decoction of a double doſe of this prepared rhubarb, with which he had mixed ſome virgin honey, by which means the patient had no nauſeas, and was freed from his diſorder, without any pains or gripes.

Some European phyſicians ſay, that a dram of the powder of that part of the rhubarb where they ſtring it, given in the morning faſting, in a glaſs of roſe or plantain water, is an infallible remedy for fluxes. The Chineſe phyſicians think quite otherwiſe; and ſay, that the rhubarb always begins to corrupt at that hole; that the powder found there is of no uſe; that it ought to be thrown away; and that only the internal part of

the root, which is weighty and well marbled, ought to be us'd. It may happen, that in China they undervalue this part of the rhubarb, becauſe it is there worth no more than four pence a pound; or becauſe, being much dearer in Europe, the natives are unwilling to loſe any of it.

There is a fourth root, which on account of its aromatic nature, ſeems to deſerve our attention. The Chineſe phyſicians who uſe it, do not know all its virtues, becauſe they are unacquainted with the method of analyſing it. They call it tamcoue. It is always moiſt, becauſe it is oleous. Its virtue, they ſay, is to nouriſh the blood, and to promote and ſtrengthen the circulation. It is an eaſy matter to have a large quantity of it at a ſmall price. It may be tranſported without any fear of corruption, provided we uſe the ſame precautions with the Chineſe, who from the province of Sſe-tchouen tranſport to other provinces whole roots of it, which they keep in large ſtore-houſes. Out of theſe the petty merchants who keep ſhops furniſh themſelves. They cut this root, as well as others, in ſmall ſlices, and ſell it by retail; for which reaſon, if the European merchants want to purchaſe Chineſe drugs at Cantong, they ought to take them from the ſtore-houſe, and not from the ſhops where the roots are ſold in ſmall ſlices.

There is a fifth drug much eſteemed and uſed in China, called ngo-kiao, which ought to be prepared in the following manner.

The province of Cantong has ſeveral metropoliſes, one of which is call'd Yentcheoufou, in whoſe diſtrict is a town of the third order, call'd Ngo-hien. Near this town is a natural well, or a hole in form of a well, near ſeventy feet deep, which, as the Chineſe ſay, communicates with ſome ſubterraneous

terraneous lake or collection of water. The water drawn from it is extremely clear, and heavier than common water. If it is mix'd with turbid water, it renders it pure at once, by precipitating the foulneſs to the bottom of the veſſel, juſt as alum does. The water of this well is us'd to make the the ngo-kiao, which is nothing but the glue made of the ſkin of a black aſs.

They take the ſkin of this animal juſt kill'd, ſteep it five days ſucceſſively in the water drawn from this well, after which they take it out to ſcrape and cleanſe both ſides of it. They afterwards cut it in ſmall pieces, and boil it in the water of the ſame well, till the pieces are reduc'd to glue, which they paſs hot thro' a cloth, in order to ſeparate the coarſer parts, which could not be melted. Then they diſſipate the humidity of it, and every one gives it the form he pleaſes. The Chineſe caſt it into moulds, with characters, and put the ſeals or ſigns of their ſhops on it.

This well is of great importance in China, and is ſhut up, and ſeal'd with the governor's ſeal, till they make the glue for the emperor. This operation is generally begun after the autumnal harveſt, and continued till the beginning of March. During this time, the neighbouring people bargain with the keepers of the well, and the workmen are employed in making the glue for the emperor. They make as great a quantity of it as they can, with this difference, that they prepare ſome of it coarſer, and are at leſs pains to provide aſſes, which are ſufficiently fat and black: however, all the glue made here is as much eſteem'd at Peking as that ſent by the mandarins of the place to the court and to their friends.

As this drug is in great repute, and as the quantity prepared at Ngo-hien is not ſufficient for

for the whole empire, they prepare a ſpurious kind of it elſewhere, of the ſkins of mules, camels, or horſes, and ſometimes of old boots. They give it the ſame form and ſtamp as near as poſſible, and expoſe it with ſome of the genuine kind in the large and beautiful ſhops; and as there are almoſt as many fools who buy, as villains who ſell it, there is a great demand for it in the provinces.

It is, however, eaſy enough to diſtinguiſh the genuine from the ſpurious kind. The former has neither a bad ſmell nor diſagreeable taſte; it is brittle and friable, and is only of two colours, either entirely black, or of a blackiſh red, like Peruvian balſam.

The ſpurious kind has a bad ſmell and taſte, even when made of the ſkin of a hog, which approaches neareſt to the true kind; beſides, it is not brittle, and is never very like the other.

The Chineſe aſcribe a great many virtues to this remedy, and affirm that it reſolves inflammations, is friendly to the breaſt, facilitates the motion of the lungs, removes oppreſſion of the ſpirits, and reſtores a free reſpiration to thoſe afflicted with a ſhortneſs of breathing; that it refreſhes the blood, and keeps the inteſtines in a fit condition for performing their functions; that it ſtrengthens the fœtus in the mother's belly, diſſipates wind, expels heat, ſtops bloody fluxes, and provokes urine.

This medicine taken faſting, is good for diſeaſes of the lungs, as experience has often evinced; for patients who have us'd it, have found themſelves ſurpriſingly reliev'd: It is ſlow, and therefore ought to be long continued; it is us'd in decoctions with ſimples, and ſome times alſo in powder, but more rarely.

In

In China there are vaſt numbers of aromatic and medicinal plants; but the beſt and moſt ſought after, only grow in the provinces of Quamſi, Yunnam, Sſe-tchouen, and Quou-tcheou.

On the mountains of the provinces of Tartary we find beautiful angelica, tho' not cultivated. We alſo ſee large tracks full of white dittany, parſnips, wild aſparagus and fennel, celandine, cinque-foil, agrimony, pimpernel, penny-royal, and the greater and leſſer plantains. In the ſmall vallies between the mountains, there are fields of beautiful mugwort and wormwood, different from that of Europe. The fern is only ſeen upon the tops of the higheſt mountains, and there are no ſuch things to be found there as kermes, gentian, maſter-wort, juniper or aſh-wood.

The mountains of Tartary, for the moſt part, have trees only on one ſide, which is generally the ſouth. This rule is not univerſal, but generally one or both ſides are bare, and only cover'd with a few herbs, and ſome parched hay, without either flowers or ſhrubs. We may readily conjecture, that there are mines, and what confirms it is, that the labourers near Gehe often find gold in the bottoms of the torrents, which they carry to the emperor, who rewards them for their pains.

The trees on theſe mountains are ſmall and low oaks, firs, ill-nouriſh'd, and with few branches, aſpin-trees, elms, and nut-trees ſo cloſe, that they form a thicket. They, however, abound in nuts, and draw the wild boars in troops for their food. Thoſe trees are intermix'd with wild roſes and thorns. We there find none of the wild fruits obſervable in moſt of the European mountains. The Mogul Tartars who inhabit theſe territories, cultivate no fruit trees, and are content with two kinds of wild fruit, which they have but in ſome parts of Tartary.

The

The first is in their language call'd oulana, which resembles a large red cherry. It grows on a small stalk three inches high, which springs up among the grass in the vallies, or on the sides of the mountains. The second grows in clusters, on a beautiful tree twenty five or twenty six feet high, and in size resembles small Corinthian grapes. When the first frost falls upon them, they become red, and are of a tartish, but very delicate taste.

In the Chinese gardens we find neither hyssop, nor sage, nor marjoram, nor borrage, nor fennel, nor thyme, nor cresses, nor basilicon, nor lavender in the plains, nor lilly of the valley in the forests. Neither do we there find tulips, nor jonquils, nor tuberoses. In the spring the fields are full of violets, which however have neither taste nor smell; but in recompence, the Chinese have so many plants, roots, trees and flowers, not found in Europe, that they may be very well satisfied with the want of those which they have not.

CHAP. XIX.

Regulations observ'd in examining the Chinese graduates and mandarins; the particular manner in which they are punish'd or rewarded; the formalities observ'd in criminal affairs.

IT is the custom in China for the court to send every three years an examinator into each province. His business is carefully to examine the compositions which every graduate is oblig'd to present him with. He punishes those whose composition

poſition is indifferent, and breaks thoſe intirely whoſe compoſition is extremely bad.

Every graduate who does not appear at this triennial examination, is from that time depriv'd of his title, and plac'd in the rank of the people. There are only two caſes in which the law excuſes him; namely, when he is ſick, and when he is in mourning for his father or his mother. The old graduates, after having in their laſt examination given proofs of their ſkill and age, are ever after freed from theſe examinations; but retain the habit, the bonnet, and the prerogatives of honour, annexed to the ſtate of a graduate.

The examination of the mandarins who govern the people, is much more ſevere than that of the graduates. They examine whether they are infirm, whether they are ſevere in their chaſtiſements, whether they are too indulgent, or negligent in executing buſineſs; whether they are ſo attached to their duty, as punctually to obey the commands of the ſuperior mandarins; whether they exact money unjuſtly of the people; and laſtly, whether they have extraordinary or indifferent talents for governing. This examination is call'd the laſt or general examination. During this examination, the viceroy, and general mandarins of the province, neither pay nor receive viſits till the catalogue and notes they have made on the ſubaltern officers are ſent to the court. On this occaſion there are ſeveral mandarins propos'd and recommended as excellent officers of great merit, with whom no fault can be found.

Upon the teſtimony and informations of the viceroy, the emperor gives orders to bring theſe excellent officers to court, where they are examin'd a ſecond time. Since they are taken from ſuch a province, and propos'd by the viceroy, he ought to

to know them, and anſwer for their extraordinary talents. In this choice he is not permitted to act by intereſt or friendſhip, nor to follow his particular views and inclinations. However, if the emperor does not find them ſuch as they had been repreſented, or if it ſhould be afterwards found, that ſuch an officer behav'd ill in his government, or had not been at the pains to exact the tribute for ſome years; or that ſuch another officer, after being rais'd to a more conſiderable poſt, has committed crimes in his preceding charge, the viceroy is always judg'd culpable; for he either knew the faults of his ſubaltern, or he was ignorant of them. If he knew them, why did he not accuſe him, inſtead of propoſing him as a man of rare meeit. If he did not know them, he is looked upon as a weak man, without either vigilance or penetration. If the ſubalterns do not dread him, and can only deceive him, he is judg'd unworthy of ſo high a rank.

For this reaſon the emperor ordered, that they ſhould more clearly determine and explain the puniſhment due to theſe viceroys, when they ſhould be found faulty in this reſpect. The firſt of the ſix ſovereign tribunals, whoſe buſineſs it is to tranſact all the affairs relating to the mandarins of the empire, aſſembled, and made the following regulations.

Firſt, That the viceroys ſhould be ſtrictly obliged to watch over the conduct of their ſubaltern officers, to make it their buſineſs to know them, and to be careful in chooſing and diſtinguiſhing thoſe whom they propoſe as excellent. Secondly, That if in their choice they ſuffer'd themſelves to be influenced either by avarice, recommendations, or other ſelfiſh views, they ſhall be broke, and declar'd incapable of ever bearing another office.

Thirdly,

Thirdly, That if after the examination of theſe officers at court, they ſhould be found to have little merit, or to have committed faults during their mandarinſhip, the viceroy who propos'd them ſhould be broke. Fourthly, That if before any thing is diſcover'd, notice ſhould be given by the viceroy himſelf, of any fault he found out after he propos'd them, this notice ſhould be attended to, and he ſhould not be puniſh'd. Fifthly, That if theſe excellent officers being rais'd to a ſuperior mandarinſhip, ſhould behave ill, it ſhould a ſecond time be examin'd how they had behav'd in the preceding mandarinſhip; and if it be found that they have before committed the like faults, the viceroy ſhould be degraded to a mandarinſhip of the third order. Sixthly, That if after examining and finding that the officer behaved well in his preceding charge, but became corrupted when he was rais'd to a ſuperior mandarinſhip, the viceroy ſhould not be moleſted, but judg'd to have fulfill'd his duty.

To theſe regulations of the ſovereign tribunal, the emperor added his own. He declar'd, firſt, That the ſubaltern officers who ſhould be found greedy extorters of money from the people, or too ſevere in their chaſtiſements, ſhould be forthwith depriv'd of their charges, without any hopes of ever being re-eſtabliſhed. Secondly, That all the other officers whom the ſovereign tribunal, according to the notes of the viceroy, ſhall have broke or degraded for any reaſon, for example, becauſe they were negligent in terminating affairs, or too weak and cowardly in the manner of their government, ſhould be by the emperor permitted to come to court to juſtify themſelves, if they thought the information unjuſt; that the ſovereign tribunal ſhould hear their reaſons, and that his

his majeſty himſelf would grant them a hearing. Thirdly, That for the execution of ſuch orders, thoſe who come to juſtify themſelves before they leave the province where they have been mandarins, ſhould obtain a paſs from the viceroy, certifying that ſuch an officer has been broke or degraded for ſuch a fault, and that becauſe he wants to make remonſtrances to the court, this atteſtation is granted him. Fourthly, That the viceroy being aſk'd by the ſaid officer, cannot refuſe him this atteſtation; or if fearing leſt his error or injuſtice ſhould be diſcover'd, he ſhould refuſe it, the ſaid officer ſhall return into the province where he was born, that he ſhall declare to the viceroy of that province, that having been broke or degraded in ſuch a province, the viceroy has refus'd him a patent to go to court, to repreſent the reaſons which juſtify him, and he ſhall demand one of the ſaid viceroy, which cannot be refus'd to him. Fifthly, That if after having examin'd the reaſons of the ſaid officer, and the reſponſes of the viceroy, it ſhall be found that he has been unjuſtly broke or degraded, he ſhall be re-eſtabliſh'd into a charge of the ſame degree with that which he had before; but if, on the contrary, it ſhall be found that he is culpable, and impoſes on the viceroy, by accuſing him of injuſtice, to the loſs of his charge, they add a corporal puniſhment, according to the baſeneſs of his crime. Sixthly, That if the viceroy is convicted of injuſtice or error, he ſhall be either broke, or degraded to an inferior employment.

For underſtanding the third and fourth article, it is neceſſary to appriſe the reader, that without a ſpecial order of the emperor, which is rarely granted, a man cannot be a mandarin of the people in his own province, nor even in the confines of

of a contiguous one. The mandarinſhip granted to an officer to govern the people, muſt be at leaſt fifty leagues diſtant from the ſkirts of his own province, that the ſolicitations of relations and friends may not diſturb him in the diſcharge of his office, nor hinder him from executing juſtice in his ſentences.

The ſuperior mandarins of each province have orders to diſtinguiſh all the mandarins of their ſeveral diſtricts into three claſſes. The firſt conſiſts of thoſe who have polite and engaging manners, who do not want to become rich, who are men of learning, and acquainted with the laws and cuſtoms of the empire, who are young, and full of ſtrength and health: The ſecond contains thoſe who are poſſeſſed of the ſame talents, but who have either an infirm ſtate of health, or are advanc'd in years: The third conſiſts of thoſe who, tho' ſound and robuſt, have yet but indifferent talents.

Nothing is more remarkable, nor better calculated for good government, than the means us'd in China, to prevent the emulation between the inferior and ſuperior mandarins. For thoſe who diſcharge their duties well, there are honourable diſtinctions, allotted as the rewards of their diligence. Theſe marks are in the Chineſe language call'd kilo, that is, to be mark'd upon the catalogue, or to have a good mark. Theſe marks are given to the firſt mandarins by the ſovereign courts of Peking, and to the ſubaltern mandarins by the governors and viceroys, who are oblig'd to acquaint the ſovereign courts with it, that they may confirm the marks granted. Theſe diſtinctions were inſtituted as a recompence to thoſe, who in the diſcharge of their office have done ſome action which deſerves a ſmall reward; for example, if they have juſtly

determin'd a difficult and embarrass'd cause; if they have exactly collected the king's taxes; if they have with equity and fidelity executed the commands of the superior mandarin. These marks are both honourable and useful to them; honourable, because they are specified in all the public writs, in all the orders or advertisements which they publish to the people; for example, I ——, first mandarin of such a town, honour'd with six (or twelve) marks of my diligence, by order of the viceroy, my superior, acquaint the nobility, the literati, and the people, that, &c. They are useful to them, because, if they have committed some slight fault, instead of depriving them of their office, the governors only erase from the catalogue one or more of these honourable marks.

But as there are honourable marks to recompense such actions as deserve a slight reward; so there are marks of laziness and negligence to punish those who are guilty of slight faults. These consist in depriving the mandarin of a small part of the salary he receives from the emperor; for example, if a mandarin has committed a slight fault, if he has marks of diligence, they are effac'd; if he has none, they deprive him of one, two, or more months salary, which goes to the emperor. If a viceroy, or any great mandarin, has presented a memorial concerning any affair, if he is mistaken in a letter, if he has omitted some words, if he has us'd an improper or obscure expression, or if what he says is not clearly understood, the emperor remits the memorial to a tribunal, which judges of these negligences. This tribunal examines, judges, and presents its sentence to the emperor, which generally consists, according to the law, in depriving this viceroy of three, and sometimes six weeks salary. The emperor either absolutely

abſolutely ſubſcribes the judgment in theſe terms, I approve of this determination, or he ſays, I for this time grant, that he ſhall not be depriv'd of his ſalary, but let his memorial be ſent back to him to render him more attentive for the future.

Six months after a robbery has been committed in any part of a province, the viceroy enquires whether the robber is taken; if he is not, he informs the court, that on ſuch a night one robber, or more, enter'd into the houſe of ſuch a merchant; that ſuch of the mandarins of the people, and ſuch of the mandarins of war, are ſpecially oblig'd by their charge to hinder robberies, and to ſearch for robbers; that for ſix months the robber has not been taken, and that theſe mandarins ought therefore, according to the law, to be depriv'd of ſix months ſalary. The ſovereign court examines this repreſentation, and makes a report of it to the emperor, who ſubſcribes it: At Canto, for inſtance, a place four hundred leagues from court, if a priſoner breaks the priſon, and ſaves himſelf, this fact is communicated to the emperor, as well as the affairs of the firſt conſequence, and the mandarin who has the charge of the priſoners, is depriv'd of ſome months ſalary, and has orders to ſeek for the priſoner till he find him: if, however, it can be prov'd, that there has been colluſion, he will be broke, and ſubjected to a corporal puniſhment. If a priſoner dies of any diſeaſe in the priſon, before the officer calls the phyſician to give him remedies, the court being appriſed of it, deprives him of three months ſalary, and often the firſt governor of the town is depriv'd of three months ſalary. It is the fault of the ſuperior, ſay they; if he went often, according to his duty, to viſit the priſons, the ſubaltern officers would not be ſo negligent, nor ſo

cruel to ſick priſoners. But if theſe officers had ſome marks of diligence, the court, after having agreed, that, according to the law, ſuch a mandarin ought to be depriv'd of ſix weeks ſalary, yet becauſe he had formerly obtain'd ſuch a number of marks of diligence, only they efface two or three of theſe honourable points. By this explication, the reader ſufficiently ſees the uſe of theſe marks. Let us now conſider the manner in which they riſe to a more honourable charge.

There is another method in the Chineſe government, of recompenſing or puniſhing the great and ſmall mandarins, without either ſhedding blood or ſpending money. To have the right of being elevated to a more honourable rank, is call'd in Chineſe kia-kie, that is, to add one degree; and to deſerve to be degraded to an inferior degree is call'd kiang-kie, to be degraded one degree. We muſt conceive of this addition of one, two, or three degrees, as we do of the marks of diligence. The uſe of them is the ſame, and they only differ in point of their being greater and ſmaller; for if the degrees added are much more eſteem'd than theſe marks of diligence, four of ſuch marks are only equivalent to one of theſe degrees, for which reaſon they are only beſtow'd on actions which deſerve them; for example, if in a time of famine a viceroy takes care, by his vigilance and good conduct, to obtain rice from the other provinces, and ſupply the wants of the people; if a mandarin purchaſes rice at his own expence for a conſiderable ſum; if he has ſo well repair'd the moles, that notwithſtanding the violence of the waters, there ſhall be no inundation; one of the ſovereign courts being inform'd of theſe ſervices, aſſembles, deliberates, and grants him two or three of theſe degrees. They are dignified

nified with this honour in all the edicts and advertiſements, which they intimate to the public. I ———, firſt governor of this city, honour'd with three degrees, intimate, that, &c. If they are afterwards elevated to a more illuſtrious mandarinſhip, theſe degrees follow them; or if they have fallen into ſome fault, the ſovereign court, which judges of theſe matters, examines the fact, and declares, that for ſuch a fact, according to law, they ought to be degraded to an inferior charge, but that ſince, by their paſt merits, they have obtain'd three degrees, they will efface two of them. If, however, the fault is great, they break them abſolutely, without any regard to the degrees they had acquir'd. All theſe deliberations and judgments are preſented to the emperor, who with his own hand confirms them, or pardons the guilty, as he pleaſes. The ſovereign court ought always to be conformable to the law, without having regard to the friendſhip, the paſt ſervices, the quality or the rank of the criminal; but if he is a great mandarin, for example, a viceroy, who has been long ſerviceable, or who has uncommon abilities, the emperor, to ſhew that he does not forget his paſt ſervices, or that he may not loſe a man of ſo much merit, conforms himſelf to the law, breaks him from his charge, but, without appointing him a ſucceſſor, leaves him in the exerciſe of it. He is no longer thought to have the charge, and yet he performs all the functions of it, as if he held it for a time in the abſence of another. By this means they furniſh the criminal with the means of repairing his paſt fault. This is a method left to him of returning into favour, without ſuddenly depriving the public of an excellent officer; for if he commits a ſecond fault, he is irretrievably loſt, whereas if he diſcharges his duty with equity

and exactneſs, the emperor, after one or two years, and ſometimes after ſix months, reſtores him to the charge of which he has been depriv'd.

By the explication of the degree added, it is eaſy to underſtand what it is to be degraded a degree. It is not always to be tranſlated to an inferior charge, but to have merited to be ſo. Sometimes the change is not made on the ſpot, and a governor of a town of the ſecond order is ſent to á town of the third order. One may, by different faults, deſerve to be degraded three or four times, or for one fault be degraded three or four degrees, without being depriv'd of his office. Theſe kinds of degradings are alſo, to the ſcandal of the mandarin, inſerted in all the writs which he publiſhes. I ———; firſt governor of ſuch a town, who have deſerv'd to be thrice degraded, &c. If by any diſtinguiſh'd action, he has merited the addition of two or three honourable degrees, they retrench a number of the diſgraceful degrees, and the ſovereign courts deliberate and judge of theſe matters upon the report of the ſuperior mandarins; but not finally; for all deliberations and judgments are preſented to the emperor, who, with his own hand, confirms, changes, or even rejects the determination, and orders the tribunal to aſſemble and deliberate a ſecond time: For this reaſon the firſt preſidents of the ſovereign courts, and the counſellors, are very attentive to what they examine, and to the judgment they paſs on each affair; for they are ſure that their judgment will be read by his majeſty, who often reprehends, puniſhes, and ſometimes breaks them, as officers ignorant of the laws, and incapable of diſcharging their duty.

The

The Chineſe government is no leſs admirable in the forms obſerved in all criminal affairs. It is firſt to be obſerved, that except in ſome extraordinary caſes, which are ſpecified in the body of the Chineſe laws, no mandarin nor ſuperior tribunal can definitively pronounce a ſentence of death. All judgments in crimes worthy of death muſt be examined, decided, and ſubſcribed by the emperor. The mandarins ſend an account of the proceſs to the court, pointing out the article of the law, which has determined them to pronounce in ſuch a manner. For example, ſuch a man is guilty of ſuch a crime; the law ſays, that thoſe convicted of it ſhall be ſtrangled; I therefore condemn ſuch a man to be hanged. Theſe informations being come to court, the ſuperior tribunal of criminal affairs examines the fact, the circumſtances and the deciſions. If the fact is not clearly laid down, or if the tribunal requires new informations, it preſents a memorial to the emperor, containing the account of the crime, and the deciſion of the inferior mandarin; and adds, "In order to judge "rightly, it is neceſſary to be farther acquainted "with ſuch a circumſtance. Thus we think it ex-"pedient to remit the affair to ſuch a mandarin, "that he may give us the informations we want.

The emperor orders what he pleaſes, but his clemency always induces him to remit the affair, that when a man's life is at ſtake they may not decide raſhly, and without the moſt convincing proofs. When the ſuperior tribunal has received the informations wanted, they again preſent their deliberation to the emperor, who either ſubſcribes it, or mitigates the rigour of the chaſtiſement, and ſometimes even ſends back the memorial, writing theſe words with his own hand, "Let the "tribunal deliberate once more on this affair, and

" make their report to me." We may ſay, that the Chineſe government uſes a ſcrupulous attention, when a man is to be condemn'd to death. This is the ſtate of juſtice in China.

CHAP. XX.

The manner of travelling in the plains of Buenos-ayres, and Tucuman; the multitude of flocks found there; the manner of catching the game; the order obſerved in the ſecular adminiſtration; the herb paraguai much eſteemed; the revenue it produces to the Indians.

THOSE who take long journies in the vaſt plains of Buenos-ayres, and in the deſarts of Paraguai, generally uſe carriages. Of theſe they take three or four, more or leſs, according to their baggage, and the number of their ſervants. Theſe carriages are covered with the ſkins of oxen, and that of the maſter is the moſt beautiful, ſince there is in it a chamber, which contains a bed and a table. The other carriages are deſtined for the ſervants and proviſions, and each carriage is drawn by large oxen, the prodigious number of which in that country is the reaſon why they do not ſpare them.

Tho' theſe carriages are heavy, yet they go ten or twelve leagues a day. They take with them ſcarce any other proviſion than bread, biſcuit, wine, and ſalted meat; as for freſh victuals, they never want them on the road. There are thirty, forty, or fifty thouſand oxen and cows wandering up and down in theſe immenſe plains. It is unlucky

lucky for a traveller to get into the midſt of them, ſince it is often three or four days before he can diſengage himſelf.

The ſhips which come from Spain to Buenos-ayres, take in hides for their cargo. On this occaſion, the grand mantanea, as the Spaniards call it, is made. They kill a hundred thouſand oxen, or perhaps more, according to the burthen and number of the ſhips. It is ſurprizing, that if a few days after we go into the parts where this great ſlaughter has been made, we only find the bones of theſe animals. The wild dogs, and a kind of ravens different from thoſe of Europe, deſtroy them ſo ſoon, otherwiſe they would infect the air of the country.

If a traveller wants game, he can eaſily obtain it with a ſtick, to which he has tied a ſtring with a loop or nooze. He may, without going out of his carriage, or ſtopping on his journey, catch as many partridges as he pleaſes. They do not fly away when the carriages paſs by them, and they think themſelves ſafe when they are hid under the graſs; but they are far from having ſuch a good taſte as thoſe of Europe. They are dry, have but little taſte, and are almoſt as ſmall as quails.

The vaſt extent of theſe foreſts is ſometimes interrupted by tracks of barren and ſandy grounds, which require two or three days to travel over them. When travellers are obliged to paſs theſe tracks, the heat of the ſun, thirſt and wearineſs, make them regret the want of the woods out of which they came, and the woods into which they enter again ſoon make them forget the ſandy plains. Sometimes, in the midſt of theſe deſart woods they find the moſt delicious ſpots, ſince all that the art and induſtry of man can invent to render a place

place agreeable, comes not near the beauties which ſimple nature produces in them.

But it is dangerous to travel in this vaſt extent of country. The Guaycarus are greatly to be dreaded, who continually ſcour the fields, and have ſeveral times attempted to ſurprize the town of Santafe. They never give any quarter, and thoſe who fall into their hands have their heads forthwith cut off. They tear off the ſkin and hair, and erect theſe as ſo many trophies. They go intirely naked, and paint their whole bodies, except their face, with different colours. They adorn their heads with a cap of feathers. Their arms are bows and arrows, a ſpear and a dart, which is four or five ells long, and ſharp at both ends. They throw it with ſo much force, that they ſtrike it thro' a man's body. They fix this dart to their wriſt, that they may pull it out after they have thrown it.

Theſe barbarians are not naturally brave, and only attack their enemies by laying ſnares for them; but before they engage, they make terrible howlings, which ſo frighten thoſe who are unaccuſtomed to them, that the moſt courageous are intimidated, and remain defenceleſs. They are extremely afraid of fire-arms; and as ſoon as they ſee one of their men fall, they all take flight. But it is not eaſy even for the moſt dexterous markſman to hit them, becauſe, when on horſeback, they do not remain one moment in the ſame poſture. They lie ſometimes flat, and at others are on the ſide, or under the belly of the horſe, whoſe bridle they fix to their great toe, while with a whip, conſiſting of four or five thongs of leather, they make the dulleſt horſe run. When they ſee themſelves cloſely purſued, they abandon their horſe and arms, and either throw themſelves into the

river, where they ſwim like fiſh, or betake themſelves to thick foreſts, from which they rarely or never venture far. In proceſs of time their ſkin is ſo hardened, that they become inſenſible to the pricking of briars and thorns, thro' which they run without any concern.

Theſe barbarians made frequent incurſions into the villages of Paraguai; but they have been ſo often repulſed and defeated, that they dare not now ſhew themſelves. The form of government in theſe villages is ſo ſingular, that it ought carefully to be related.

The Indians of that country have a peculiar genius for the mechanick arts; ſo that there are a great many trades in which they excel. They make all the cloths and ſtuffs for which they have occaſion. In ſummer they are cloathed with cotton, and in winter with woollen garments. As this manufacture is very conſiderable, when the inhabitants are ſufficiently provided, they ſend the ſurplus to Buenos-ayres, Corduba, and Tucuman. The money ariſing from theſe commodities ſerves to buy ſeveral things which come from Europe, and are not to be found among them. They alſo traffic conſiderably in a certain herb which grows in Paraguai, and which is much uſed in Chili and Peru, juſt as the Chineſe tea is in Europe.

It is to be obſerved, that it is only on the mountains of Maracayu, near two hundred leagues from the villages of Paraguai, that the trees which produce this ſo much eſteem'd fruit grow naturally. The Indians of Paraguai ſtand in abſolute need of it, both for their drink, and an exchange for aliments and other commodities. It was formerly neceſſary for them to ſpend ſeveral months of the year in travelling to theſe mountains. By this means the villages were often expoſed to the incurſions

ſions of their enemies. Of ſeveral thouſands who ſet out, a great many never returned, becauſe a change of the climate, and the vaſt fatigues of the journey, deſtroyed incredible numbers. Others, wearied with the toil, fled into the mountains, and were never afterwards ſeen. In order to remedy theſe inconveniencies, they brought young trees from Maracayu, and planted them near the villages. Theſe plants ſucceeded very well; and of the ſeeds, which reſemble thoſe of ivy, they formed nurſeries; but the fruit produced by theſe cultivated trees has neither the ſame ſtrength nor virtue with that which grows on thoſe that are wild. The king of Spain has allowed the Indians of the villages of Paraguai every year to bring to the town of St. Foi, or to the Trinity of Buenos-ayres, twelve thouſand arobes (an arobe weighs twenty-five pounds) of the fruit of the Paraguai, but they can hardly bring above ſix thouſand. Beſides, what they bring is not the fineſt ſort, called caamini, which is very rare, but that called pabos, which is the moſt common. The current price of this commodity at St. Foi, Buenos-ayres, and the royal receipt where the tributes are collected, is four piaſters for each arobe; ſo that what the Indians bring every year amounts to about one thouſand pounds. The money or commodities got for this piece of merchandize, are equally divided among the inhabitants of each village.

Their houſes are only one ſtory high; and tho' they are ſtrong, yet they have none of the ornaments of architecture, becauſe the inhabitants in building them have no other view than to defend themſelves from the injuries of the air. Their church is large, magnificent, and extremely rich. All the inhabitants are ſupplied with proviſions in the following manner.

Thoſe

Thoſe who reap are obliged to lodge all the grain in public magazines taken care of by perſons who keep a regiſter of all that they receive. In the beginning of each month, the officers who have the care of the grain, deliver to the chiefs of the quarter, the quantity neceſſary for all the families of their diſtricts; and theſe chiefs forthwith diſtribute more or leſs, according to the greater or ſmaller number of each family.

The ſame cuſtom is obſerved in the diſtribution of fleſh. Every day a certain number of oxen and ſheep are put into the hands of perſons appointed to kill them; who, after the animals are killed, inform the chiefs of the quarter, who take what is neceſſary, and give each family a quantity proportioned to their number.

In conſequence of this regulation, they have no poor nor beggars; but all enjoy an equal abundance of the things neceſſary to life. There are in each town ſeveral large houſes for the ſick, ſome for the men, and others for the women. In theſe different houſes there are perſons appointed to take care of the ſick, and to ſee that they want nothing which may be neceſſary for them.

CHAP.

CHAP. XXI.

The extreme misery of the Indians of Madura. The means they have of enriching themselves; their avarice; their delicacy with respect to the precedence of their tribes; their employments and government; the occupations of their women; the fruits, herbs, and animals of the country.

AT Madura we find, as in other places, some people who are poor, and others who are rich. The number of the former is very great, and many of them are sometimes obliged to sell their children, and even themselves, for subsistence. Some of them labour the whole day like galley-slaves, and hardly earn what is just sufficient to support themselves and their families. There are multitudes of widows, who have nothing to supply their wants, besides a kind of spinning wheel. Such is the extreme indigence of many others, both men and women, who have nothing to cover their nakedness, except a small piece of stuff all in rags, and who have not so much as a mat to lie upon. The houses of the country people in Europe are palaces, in comparison of the miserable hovels in which these Indians lodge. Three or four earthen pots make up all the furniture of their cottages.

There are, however, rich men in the Indies. Agriculture, commerce, and employments, are there the ordinary means of becoming rich; but the poor have a great deal of difficulty to preserve them-

themſelves from oppreſſion. Fraud and uſury prevail in commerce; and the exerciſe of the public offices is a true robbery. Theft is another and ſhorter means of becoming rich. It is very common in the Indies, and there is perhaps no country in the world where petty robbers are more deteſted, and where great ones are better ſcreened from puniſhment. Among the Indians, there is a whole tribe who do not bluſh at the name of robbers, and publicly profeſs to be highwaymen. The labourers muſt be very careful, eſpecially in the night, leſt their cows and oxen ſhould be carried off. But notwithſtanding all their care and circumſpection, their loſſes of this kind are very frequent. They thought to prevent theſe nocturnal robberies, by eſtabliſhing guards in each village, who are ſupported and paid by the labourers; but the remedy is become worſe than the diſeaſe, ſince theſe guards are themſelves the worſt of all robbers.

The kings and great lords, by their oppreſſion, amaſs great riches; but the common uſe they make of their treaſures, is to bury them under ground, otherwiſe gold would be very common in the Indies. It is ſaid, that thoſe who thus bury their riches, ſacrifice human victims to demons, that they may take the charge of them, and not permit them to fall into other hands than their own. Many, however, ſearch for theſe treaſures, and that they may diſcover them, make other ſacrifices of children and pregnant women to the demons.

Generally ſpeaking, it is a crime at Madura to be rich. There is no accuſation more willingly heard, and no fault more ſeverely puniſhed. They forthwith put the accus'd perſon on the rack, to force him, by the violence of the torments, to diſcover

cover where he has hid his money. Hence it happens, that the rich conceal their ſubſtance carefully, and are neither better cloathed, nor lodged, nor fed, than the moſt indigent. Hence it alſo happens, that tho' there are vaſt numbers of really poor people, there are alſo a great many others who affect to appear ſuch, when they are very rich.

If, on the one hand, they in the Indies affect to be poor in the midſt of riches, they are, on the other, very jealous of diſtinctions, and of the rank which their birth gives them. There is hardly any nation which has ſo much delicacy with reſpect to theſe kinds of prerogatives.

The Indians are divided into ſeveral claſſes of perſons of the ſame rank and birth, and who have their particular uſages, cuſtoms, and laws. There are three principal claſſes, that of the bramins, which is that of the firſt nobility; that of the kchatrys or rajas, which correſponds to what in England we call gentry; and that of the choutres, which ſignifies the common people. Beſides theſe three tribes or claſſes, which are of great extent, there is a fourth called the claſs of the parjas, which is compoſed of the vileſt and baſeſt of the people. It is by all others looked upon as an infamous tribe, with which they cannot have any commerce, without loſing their honour. The horror they have at a praja goes ſo far, that every thing he touches is thought defiled, and unfit to be uſed. They only ſpeak to them at a great diſtance, and do not permit them to dwell in the towns, from which they muſt remove, and build their habitations at the diſtance preſcribed to them.

Each of theſe principal claſſes is divided into others, ſome of which are more noble than the reſt.

reſt. The claſs of the choutres contains moſt of the ſubordinate claſſes, ſuch as that of the merchants, that of the labourers, the ſilver-ſmiths, the carpenters, the maſons, the painters, the weavers, &c. Every trade is included in the ſame claſs, and only thoſe of that claſs can be employed in it.

Thus a carpenter would be ſeverely puniſh'd for working at the buſineſs of the ſilver-ſmith. There are, however, certain profeſſions, to which every one belonging to any of the claſſes of the choutres may apply himſelf, ſuch as thoſe of the ſoldier, the merchant, and the labourer: but there are other occupations which greatly vilify thoſe who follow them. For example, in ſeveral parts of the Indies they place in the rank of the prajas, fiſhers, ſhepherds, ſhoemakers, and generally all thoſe who work in leather.

The ſecond thing to be obſerved, is, that an Indian cannot, without being degraded, eat with a perſon of a claſs inferior to his own, nor even eat the aliments prepared by a perſon of that claſs. Thus it muſt be a bramin, and not a choutre, who dreſſes the victuals of another bramin. The ſame holds true with reſpect to marriage, which no one can contract out of his own claſs. He who ſhould contract an alliance with an inferior claſs, would be diſhonoured for ever, looked upon as infamous, and totally expelled from his claſs. When the Portugueſe firſt came into the Indies, they made no diſtinction of claſſes, and mixed themſelves indifferently with the prajas, ſome of whom they even took into their ſervice. From that time, the contempt which the Indians had for the prajas paſſed alſo to the Europeans, and has continued ever ſince.

It is to be obſerved, that tho' honour and riches may be acquir'd by great actions, yet nobility cannot be attained in the ſame manner, but is the pure gift of birth. The king can neither beſtow it, nor private perſons purchaſe it. The king has no power over the claſſes, nor can he himſelf paſs to a ſuperior one.

The men have various employments; ſome ſerve the prince, others cultivate the land, ſome apply to commerce, and others labour at the mechanic arts. In the Indies, there are neither tax-gatherers nor lawyers. The intendants or governors are charged with the adminiſtration of juſtice, the raiſing of the taxes, and the military government.

Juſtice is diſpenſed without any noiſe or tumult, and moſt cauſes, eſpecially thoſe of ſmall conſequence, are determined in the town. Every one pleads his own cauſe, and the principal men are the judges. They do not often appeal from their ſentence, eſpecially if theſe judges are, as it generally happens, the leading men of the claſs. When they have recourſe to the governor, the proceſs is terminated almoſt in the ſame manner, except that he generally fines both parties; for he knows the means of finding both guilty. Preſents often caſt the balance on one ſide, but it becomes equal when the judge is bribed by both parties.

As for the military government, the governors from time to time raiſe ſoldiers according to the exigence of the ſtate. The king ſometimes ſends detachments into the provinces; but this is generally to ſubdue ſome of the rebellious lords who refuſe to pay the tribute, or to chaſtiſe thoſe who have committed ſome terrible piece of injuſtice. They beſiege their fortreſſes, on which occaſion the

the cannon play, but very weakly, and there is very little bloodſhed on either ſide. Provided the perſon in fault has money, and is willing to make a reaſonable compoſition, they give him good quarter, and he is permitted to defend himſelf by new taxes which he lays on the poor. Theſe lords are, as it were, petty ſovereigns, who govern their territories abſolutely, and whoſe whole dependance conſiſts in the tribute which they pay to the king. They are hereditary, whereas the governors and intendants are diſplaced at the pleaſure of the prince. Some governors continue only four days, and yet become rich in that time, if they are cunning. Theſe governors are often put to the rack, in order to make them give up what they have acquired, after which they are re-eſtabliſhed in their charges, whatever oppreſſions they may have been guilty of.

Criminal law is not exerciſed with a great deal of ſeverity. If we have ſaid that a man was always criminal when he was rich, we may in like manner ſay, that as ſoon as he is rich he is innocent. The raiſing of the public taxes is the office of the intendants, who, as the ſubſidy is real, make an eſtimate of the lands, and tax them as they pleaſe. But they generally find ſo many expedients to cheat the labourer, and pillage him, ſometimes under one pretext, and ſometimes under another, that he often reaps no benefit from his toil, and the harveſt on which he grounded his hopes, paſſes into the hands of others.

As for the women, they are leſs the companions than the ſlaves of their huſbands. It is cuſtomary for the huſband to ſpeak contemptibly to his wife, and for her to ſpeak to him, and of him, with the greateſt reſpect. A wife muſt never pronounce the name of her huſband, but muſt uſe periphraſes

and circumlocutions to expreſs her reſpect. It is no ſurpriſing thing to ſee them beat their wives, and abuſe them in the moſt terrible manner. If they commit faults, ſay they, why ſhould not they be corrected for them. The wife is never admitted to the table of the huſband, but ſerves him like a ſlave, and the children, as if ſhe was their ſervant. Hence it happens, that the children are gradually accuſtomed to look upon her as ſuch, to treat her with contempt, and even ſometimes to ſtrike her. The ſtep-mother is a rigid miſtreſs, always lays the burden of the houſhold labour on the ſtep-daughter, and continually gives her orders in a harſh and imperious manner. Very often, however, the wives reduce their huſbands to good behaviour, by making an elopement to their friends, who take their part; and on theſe occaſions reproaches and imprecations are not ſpared. The wife does not return till the huſband, or ſome of his relations, come for her; and ſhe ſometimes obliges them to a great many uſeleſs journies. When ſhe conſents to return, they give a ſumptuous feaſt to the husband, and reconcile him to his wife, who follows him home.

The women employ themſelves in domeſtic affairs, in gathering wood, pounding rice, making oil, and other things of that nature. The oil is made of a ſhrub, by ſome European botaniſts called palma chriſti. They boil the fruit gently, and expoſe it two or three days to the ſun. Then they pound it and reduce it to paſte, which they dilute in water, pouring two meaſures of water on two meaſures of the pounded fruit, after which they boil the whole. When the oil ſwims on the ſurface, they take it off with a ſpoon, or by inclining the veſſel to one ſide. Then they waſh the ſediment in water, and draw a little more oil from it.

The

The manner of pounding the rice is very ſingular. The rice grows with a hard rough ſkin like barley, and in this condition it is called nellon. They boil it gently in water, dry itin the ſun, and pound it ſeveral times. By the firſt pounding it is freed from its coarſe ſkin, and by the ſecond from the red pellicule below it, ſo that it appears more or leſs white according to the ſpecies of the nellon, of which there are more than forty ſorts. When it is thus pounded, it is called ariſi. Two meaſures of good nellon yield one of ariſi. It is not mealy and broken like that of Europe. It does not ſwell in boiling, neither can it be kept long.

If the women have any leiſure time, they employ it in ſpinning; for they never work at the needle, and do not ſo much as know how to handle it. There are ſome tribes in which the women are not permitted to ſpin, others in which they are only employed in making baſkets and mats, and theſe cannot pound the rice, and others in which they cannot go for water, which is the buſineſs of a ſlave, or of the husband. In general, it is not cuſtomary for the women to learn to read and write; they leave the charge of this to the ſlaves of the pagods, that they may ſing the praiſes of the demons.

The following are the aliments of the Indians. Water is their common drink, not becauſe they want intoxicating liquors, but becauſe theſe are only uſed by the dregs of the people, and are abhor'd by the better ſort. The principal of theſe liquors, is that which flows from the branches of the palm-tree into a veſſel fixed to receive their juice. With a certain bark and the powder of the palm-tree, they make a brandy which burns like that of Europe. Others ferment certain grains, and from them obtain a wine which intoxicates.

Rice is the moſt common food, and thoſe who can afford it, boil it with fleſh, fiſh, or pot-herbs. Sometimes they eat it with herbs, boil'd like ſpinnage, or with a kind of ſmall beans which their country produces. They alſo eat it with milk, and the vulgar and poor eat it with boiled herbs, whey, or ſimply with a little ſalt.

They have not rice in every part of the country, ſince in ſome they have only millet. They have very beautiful wheat on ſome of the mountains, but very few except the Turks and Europeans uſe it. The Turks form it into thin cakes, and the Europeans make bread of it, and biſcuits like thoſe uſed by ſailors.

In the Indies there are almoſt no European fruits except ſome oranges and lemons, which they do not allow to ripen. They gather them and preſerve them in ſome ſtrong pickle, in order to prevent their ſpoiling, and eat them with rice.

The moſt ordinary fruit is the banana, or Indian fig. There are alſo mangos, eſpecially towards the mountains. Their kitchen gardens produce gourds of various kinds, cucumbers, and other herbs peculiar to the climate. They have no ſorrel, the want of which is made up by tamarinds. They have onions; but cabbage, turnips, and lettuce, are foreign plants, tho' they grow very well when they ſow them.

As to the animals, there are in the mountains elephants, tygers, wolves, apes, ſtags, boars, hares, and rabbits. They leave the game pretty much at reſt, tho' hunting is permitted to every body. The lords ſometimes go a hunting or fowling for their diverſion, but they do not purſue theſe amuſements with keenneſs.

Some princes have domeſtic elephants and horſes. The horſes produced in the country are ſmall and weak,

weak. Thoſe uſed in the army are brought from other countries, and are very dear. Incredible pains is requiſite to preſerve them; ſince every day it is neceſſary to give them ſome drug or other. Before they dreſs them, and when they make the leaſt ſtop on the road, they muſt rub them down, in order to ſtrengthen their fleſh and nerves. If this care is not taken, their nerves are ſhriveled up, and they in a ſhort time become good for nothing. Inſtead of oats they give them a kind of lentils which they boil.

The oxen are of great uſe in the Indies, and a man's riches are judged of by the number of his oxen. They are uſed for tilling the ground, and for drawing carriages. Moſt of them have a large bunch on their necks. When they yoke them in the carriages, they put a cord about their necks, to this cord they fix a pole croſs the breaſts of the two oxen, and to this pole the beam of the carriage is fixed.

Their ploughs have no wheels, and the iron which ſerves inſtead of a coulter, is ſo narrow, that it only ſcratches the place where they ſow the millet. The rice requires much more toil and culture. The fields where it is ſown are always on the edges of ponds, made on purpoſe to keep the rain water, with which they moiſten the ground in times of drought.

They have a great many chariots which are genteelly enough made. The wheels are very ſmall, and made of large planks joined to each other. They have no other nave than a hole in the middle of theſe planks. The body of the chariot is very high, and adorned with carving, ſculpture, and all ſorts of figures. Theſe chariots are of no uſe, but to contain the idols which they carry about the ſtreets in proceſſion. The

great lords are carried in chairs, but not without the prince's permiſſion.

At Madura there are a great many buffaloes, which they employ in tilling the ground, and which they yoke in the ſame manner with the oxen. It is a capital crime to kill an ox, a cow, or a buffalo. The Indians have as great a horror at the fleſh of theſe animals, as the Europeans have at that of horſes. None but the moſt contemptible claſſes dare eat theſe animals when they die of themſeves.

They are not of the ſame opinion with reſpect to bald mice, rats, lizards, and even certain white ants. When theſe ants become winged, and taking flight fall in the marſhes, the Indians there gather them, and repreſent them as a very delicious food. Goats, ſheep, and fowls are the moſt ordinary food. There is a ſpecies of fowls, whoſe ſkin and bones are entirely black, but they are as good as the others. The Indians alſo love fiſh, which they dry in the ſun, but they do not generally eat them till they are ſpoiled and corrupted. They then think it beſt, becauſe it gives a reliſh to the rice, which is inſipid.

The aſſes are uſed in the ſame manner as in Europe: But 'tis ſingular, that there is a whole claſs or tribe who pretend to be deſcended from an aſs in a direct line, and boaſt of it. This claſs is one of the beſt, and is even that to which the king belongs. Thoſe belonging to this claſs treat aſſes like their brothers. They ſtand up in defence of them, and do not permit too heavy loads to be laid on them; nor do they ſuffer any one to beat them exceſſively. If they ſaw any perſon uſing theſe cruelties, they would forthwith bring him to juſtice, where he would be fined. They are permitted to lay a ſack on the back of that animal,

animal, but if they lay any thing above the ſack, the cavaravadouquer (the name of this claſs) would make him ſuffer for taking ſuch a liberty. They have leſs charity for men than for theſe creatures; in rain, for inſtance, they will give ſhelter to an aſs, and refuſe it to his driver, unleſs he belongs to a good tribe or claſs.

In the Indies there are ſeveral kinds of rats, and the Indians go in queſt of theſe animals juſt as the Europeans do in ſearch of rabbits; ſome of them greatly reſemble moles in the ſmoothneſs of their ſkins, but they are not altogether ſo black. The Portugueſe call it the ſcented rat, which is ſaid to attack and deſtroy the ſerpents. There is another ſpecies which digs into the earth like the mole, but theſe are generally found only in houſes.

There are alſo cats which yield muſk, and produce this odoriferous ſubſtance by rubbing themſelves againſt a ſtake, and from this ſtake they take the muſk. As for ſerpents they are very numerous, and ſome of them ſo venomous, that a perſon bit by them drops down dead before he can walk ſeven or eight paces, for which reaſon they are call'd ſerpents of eight paces. There is another which the Portugueſe call cobra de capelo, the hooded ſerpent, becauſe, when it is provok'd, it raiſes the half of its body, and creeps on its tail; its neck is enlarg'd in form of a domino, on which are three black ſpots, which, in the opinion of the Indians, add a beauty to this ſerpent, for which reaſon they call it the good or beautiful ſerpent. They have ſo great a reſpect for it, that if they ſhould kill it, they would think themſelves guilty of ſacrilege.

Among other inſects there are green flies, which ſhine in the night, and delight in moiſt places. When there is a great many of them, and when

when the night is dark, they make a very beautiful appearance, like ſo many ſmall fluttering ſtars. There are ants of ſeveral kinds, but the moſt pernicious is that call'd caria. This inſect is the ordinary prey of ſquirrels, lizzards, and ſome birds. To ſecure itſelf from ſo many enemies, it has the cunning to form a bank of earth almoſt as high as a man. For this purpoſe it brings together mortar, which it moiſtens, and compacts ſo firmly, that a ſtrong and almoſt continual rain is neceſſary to give it a ſenſible ſhock. The fields are full of theſe banks, and the labourers do not beat them down, either becauſe they are extremely firm, or becauſe in a few days they would be built again. Theſe banks are full of apartments, in form of irregular canals. The caria comes out at certain hours to go a foraging, cuts the graſs very quickly, and carries it into its habitation.

There is another ſmaller ſpecies of caria, which generally ſhelters itſelf in houſes. In the center of its habitation there is a comb almoſt like that in a bee-hive. Hence this inſect climbs to the roofs of the houſes, but only advances in proportion, as it covers itſelf, and by forming with the earth which it brings, a certain pipe, which ſerves as a road to it. It gnaws the leaves of the palm-tree, and the ſtraw and ſtubble with which the houſes are thatch'd. They have bees, but are not at the pains to make hives for them; however, they neither want wax nor honey, both of which they take from the hives which the wild bees have made for themſelves on the mountains.

We ſhall conclude with conſidering the manner in which the Indians are cloath'd. Their ſhoes are a kind of pattins, not unlike thoſe us'd in France by ſome of the religious of the order of St. Francis. They are only kept on by a peg of wood,

wood, which is put between the great toe and that next to it. The king and the great lords uſe ſilver pattins. The Indians pretend that ſhoes of this kind are the moſt proper and commodious for their country. They are the moſt proper, ſay they, becauſe they can waſh them at all times, and waſh their feet in them, which is very neceſſary, on account of the heat; they ſay they are the moſt commodious, becauſe nothing is more eaſily put off and on. 'Tis not reckon'd genteel to wear ſandals, for which reaſon they always throw them off before they approach any perſon who merits reſpect.

As for the Indian modes, they are almoſt always the ſame, ſince that people rarely vary their uſages, eſpecially in their manner of cloathing themſelves. The common people give themſelves little trouble about it, for they cover their body only with a piece of cotton; and it often happens that the poorer ſort have ſome difficulty to procure a piece of this ſtuff to cover themſelves. The great lords cloath themſelves very elegantly, according to their taſte, and the heat of the climate. They cover themſelves with very white, fine, and tranſparent cotton, which deſcends to their heels. They have red breeches and ſtockings all of a piece, which come no farther than the inſtep. They wear a kind of red leather pumps embroidered, whoſe quarters behind fold under the heel. They wear ear-rings of gold or pearls. Their girdle is a piece of ſilk embroidered with gold, and their bracelets are ſilver. They wear gold chains or gold beads about their necks.

The ladies have nearly the ſame dreſs, and are only to be diſtinguiſh'd from the men, by the different manner in which they adorn their heads.

CHAP.

CHAP. XXII.

The ſhrub which produces cotton; manner of carding, ſpinning, working, and bleaching it.

COTTON grows in the Indies, on a ſhrub three or four feet high, which when full grown, bears a green fruit, of the bigneſs of a young walnut; and when this fruit begins to ripen, it opens in the form of a croſs, at which time the cotton begins to appear. When it is quite ripe, it divides itſelf into four equal parts, which are ſupported only by the ſtalk. They then gather the cotton mix'd with the ſeed.

But as this ſeed adheres cloſely to the cotton, they ſeparate it by means of a ſmall and pretty curious machine, about thirteen or fourteen lines in diameter, and four inches in length. Two axes enter into two pieces of wood, which are in height about a cubit, and two inches in thickneſs. Theſe two cylinders or axes are placed immediately over each other, at the diſtance of a line, or a line and a half at moſt, in ſuch a manner that the ſeeds of the cotton cannot paſs betwixt them. But what is moſt ingenious in this machine is, that by by the motion of the handle, which holds the cylinder above, theſe two cylinders move in a contrary direction: This is perform'd by means of the two pieces of wood, which communicate with the two axes, on the ſide oppoſite to the handle, and being in the form of ſcrews, grapple in each other, whence it happens, that the handle making the higher cylinder turn in a certain direction, the

end

end of the ſame cylinder grappling in the end of the other, makes it turn in an oppoſite direction.

Hence it happens, that the cotton applied to theſe two cylinders is drawn through, and drops the ſeeds that were mixed with it in its paſſage. Theſe ſeeds are preſerv'd to ſow the lands that are proper for cotton.

They then card the cotton, which is firſt done with the fingers, much after the manner of making lint; afterwards they ſpread it on a ſort of mat, and finiſh carding it with a pretty long bow, which they lay upon it, and draw the cord, ſo that the vibrations falling frequently and ſtrongly upon the cotton, whip it, as it were, and make it very fine and delicate.

They then give it out to be ſpun, to men and women, which is perform'd with a wheel, ſmaller than thoſe us'd in Europe. The beauty and goodneſs of the thread depend almoſt intirely on the ſkill of theſe artiſts; there is a fine and a coarſe ſpecies, and between theſe extremes there are many ſorts and degrees.

Beſides, they do not waſh the thread, but after having given it to the weaver, he immediately chuſes the largeſt thread for the woof, and reſerves the fineſt for the weft, which ſuppoſes plainly, that in thread of the ſame kind there is always a difference. They boil ſome time in water the thread deſign'd for the woof, and when it is very hot, they plunge it in cold water; which is all the preparation neceſſary, before they put in the ſhuttle.

The thread which ſerves for the weft is prepar'd in the following manner: They ſteep it well in cold water have diluted a ſmall quantity of cows dung, ſtrain out the water, and ſo leave this thread wet for three days, in

in an open veſſel, and then dry it in the ſun ; when it is ſufficiently dry, they divide it in thefollowing manner.

They in a ſtrait line, and in a clean place, plant little laths of bamboo, of the height of three feet, and at the diſtance of a cubit from each other, in a ſpace equal to the length of the web they deſign to make ; afterwards children interlace the thread in the little laths of bamboo ; the number of threads being complete, they take care to inſert new laths among the former, to keep the thread even, and to prepare it the better ; after this, they roll up the thread and laths, which form, as it were a long hurdle, and thus they carry it to a pond, where, having let it ſteep a quarter of an hour, and trampling it under foot, that the water may penetrate more eaſily, they dry it. After this they examine the threads to put them in order ; for which purpoſe they replant the hurdle upon the ground by the ends of the laths, and the weavers ſeated near the hurdle, look over the threads one after another, and range thoſe that are out of their places.

After this operation they think of giving the thread the neceſſary preparation for working it. Then they pull up the hurdle, and ſtretch it upon horſes or ſupports placed at equal diſtances, of the height of the laths, and give it what they call the cange. This cange or cleanſing is nothing elſe but the liquor of boil'd rice, which having been kept a long time, is become very acid. They rub the thread with this cange, firſt with their fingers, and afterwards more thoroughly with a kind of bruſh, the hairs of which inſinuating betwixt the threads, cleanſe them perfectly, unite them, and preſs together all the parts. This operation requires ſome time ; for, firſt, they cover the

the thread with a glue made of boil'd rice, and, to ſpread it the better, uſe the bruſh a ſecond time. They then allow this thread to dry in this condition, and for the laſt operation oil it, which is done by bruſhes dip'd in that liquor. We muſt obſerve, that theſe different preparations of the thread muſt be applied to both ſides of the hurdle, in ſuch a manner, that after having prepar'd one ſide, they turn the hurdle on the other, to give it a like preparation.

When the thread thus prepar'd is very dry, it is ſo beautiful, ſo neat, clean, and equal, that it reſembles ſilk. Without this cange, and other preparations, the cotton would not have near the beauty it has; for the cange being acid, unites and cloſes at once the minute filaments, which compoſe the thread, and the glue being put upon it, holds and binds them in this condition, by giving them more body and more conſiſtency, in order to be work'd. Laſtly, the oil ſerves to ſoften and render the thread more flexible. When it is thus prepar'd, they put it to the loom, make muſlins, ſalempores, and, in general, all thoſe beautiful ſtuffs which we meet with in the Indies, the difference of which depends on the thread, and the ſkill of the weaver.

The manner the weavers have of making theſe cotton ſtuffs, is nearly like that followed in Europe. When the web is finiſh'd, they muſt bleach it, and give it that pleaſing luſtre for which cotton is ſo famous.

They therefore put it into the hands of the bleacher, who ſteeps it firſt ſome time in cold water; then taking it out, and preſſing out the water, he ſteeps it again in a ſecond water, which is mix'd with cows dung; when he has wrung out this water, he ſpreads it on the ground, and leaves it

it ſome time in the air; then he twiſts it in the form of a concave cylinder over the mouth of a great veſſel of boiling water. The vapour ariſing from this boiling water penetrates the web, previouſly impregnated with the moſt ſubtile ſalts of the cows dung, and by its heat diſſolves, and gets out the foulneſs and dirt of the web: This is the firſt lie which they give it. They leave it in this condition a whole night, and the next day waſh and beat it very well upon a ſtone; ſo that a part of the dirt is ſeparated from it.

The ſecond day they put the ſame web into a great earthen jar, where they dilute quick lime with a kind of white and light earth, which without doubt is filled with a great deal of ſalts: They mix this quick lime and earth in equal quantities, and then dip and rub the web thoroughly in this liquid; after which they wring out the water, and leave the web ſome time ſtretched out, and expoſed to the air; they wring it again, and having rolled it as before, about the mouth of a great earthen veſſel, wherein they have put water with the ſame mixture, they give it, the ſecond lie, which by filtrating again thro' all the parts of the web, by the help of thoſe ſalts with which it is impregnated, removes all the remaining foulneſs, and makes it perfectly white. If they find the web not ſufficiently white, they repeat this lie; after which they cleanſe it, and beat it well in clear water, and afterwards dry it in the ſun.

There is another method which they uſe for the ſalempores, and other ſimilar ſtuffs. They make ten or twelve foldings; and after ſmoothing them on an even board, beat them with a proper inſtrument, to give them their finiſhing luſtre.

CHAP.

CHAP. XXIII.

Deſcription of the iſle of Bourbon; ſtature of the inhabitants; trees, fruits, and particular animals found in this iſland; deſcription of the lizzard, flying ſquirrel, flying fiſh; of the horned fiſh, the racoon, and the marſouin.

IN the iſle of Bourbon all ſorts of refreſhments are to be found, and the air is particularly excellent. It belongs to the French Eaſt India company, who have a governor there. It was at firſt inhabited by ſome French refugees, who came from the iſland Dauphinè, which is pretty near it. It became peopled by degrees, eſpecially by the pardon that was given from time to time to the pyrates, who infeſted thoſe ſeas.

The chief boroughs or habitations of this iſland are St. Denis, St. Paul, and St. Suſanna. There is neither harbour nor fortifications; ſo that ſhips are neither ſhelter'd from the violence of winds, nor raging of the ſea.

The iſland of Bourbon is about fifty leagues in circumference, and in ſome places abounds with high mountains, one of which belches out flames, and fills the neighbourhood with bituminous matter. This fire is perceiv'd in the night-time, at the diſtance of twenty-five leagues. There are fine ſpacious foreſts, where we find a number of trees very proper for the building of ſhips. It is full of cattle, fowls, and game, and is fruitful in rice, ſugar, and a great number of excellent fruit trees; and among the reſt, ſome vines which yield very good wines.

The beſt animal found here, whether for taſte or wholſomneſs, is the land tortoiſe; and the moſt agreeable fruit is the ananas. This tortoiſe is of the ſame figure with thoſe in Europe, but very different in ſize; they ſay it lives a prodigious time, that ſeveral ages are requir'd to bring it to its full growth, and that it can live ſeveral months without food.

They have kept ſome young ones in the iſland, which at the end of twenty years increas'd in bulk only ſome inches.

As for the ananas, it is a fruit of an oblong figure, and of the bigneſs of a melon: It is covered with ſhort leaves, diſpos'd very much in the ſame manner as the diviſions of a pine apple; and it is crown'd with a tuft of leaves ſomething longer: It grows on a plant reſembling an artichoke, and has the taſte of ſeveral fruits; but more eſpecially of a quince.

In this iſland are ſeveral ſorts of curious trees and plants; the ſhrub that bears coffee, the tamariſk, the cocoa-tree, the tree from whence benzoin diſtils, the cotton-tree, the aloes-tree, and the ebony. Black ebony is not moſt eſteem'd, becauſe the yellow is more beautiful. Wild coffee is very common, and tho' wild is very good.

The bat of this iſland is very ſingular, and one might call it the flying fox, ſince it very much reſembles this animal in ſize, hair, the head, ears, and even teeth. The female has two teats, and under each wing a bag to carry her young in. The length of their wings is above four feet from one extremity to the other. Their fleſh is ſo good to eat, that they go a hunting for t em with the ſame eagerneſs as with us they go a ſhooting partridges.

But tho' this iſland be ſo agreeable, it does not come near to the beauty of the coaſts of Java and Sumatra; plains cover'd with orange-trees, cocoa, and other fruit-trees, with a number of rivulets, which water them; hills adorn'd with delightful groves, foreſts for ever green; villages and towns ſhining with all the rural graces concur to render theſe coaſts the moſt charming in the world. The Javaneſe are neither black nor white, but of a reddiſh purple: They are mild, familiar, and complaiſant.

In the ſame road we find Poulo-condor, which is a little archipelago, about fifteen or twenty leagues to the ſouth of the kingdom of Camboge. It conſiſts of eight or ten iſlands, or rocks, the greateſt of which is not above four leagues in length. This is the only one inhabited, and there is no more than one village ſituated in the only plain found in it.

The houſes of theſe iſlanders are only a confuſed pile of bamboo, covered with a very long graſs, which they cut on the borders of their rivulets. In theſe huts there is neither a door to enter at, nor a window to admit the light. They leave one ſide of their habitation quite open, and on that ſide make the covering or roof lower. They raiſe their floors ſome feet from the ground, and by that means avoid the dampneſs, and obtain a place for their domeſtick animals during the night, whoſe ſmell does not offend them at that diſtance. The floor at certain diſtances is rais'd four or five inches: They receive ſtrangers in the middle, on mats: Their reception is kind and affable, and they entertain them with arrack, betony, and a pipe. They are very much tann'd, and almoſt intirely naked, except in their ceremonies, wherein they dreſs themſelves, and ſome of them pretty

neatly. The blackeſt teeth are eſteem'd amongſt them the moſt beautiful, wherefore they omit nothing to increaſe this colour. They let their hair grow, which commonly is very long.

There is but very little rice in this iſland; ſome potatoes, and ſome very good ananas. The mountains are almoſt intirely cover'd with beautiful trees, proper for all ſorts of works, and even the maſts of ſhips. There is a very common tree from which diſtils a roſin, which the inhabitants make uſe of for their flambeaux. To gather this roſin, and make it diſtil more freely, they make a cavity in the trunk of the tree, the bottom of which forms a kind of receiver. In a certain ſeaſon of the year they light a fire in this cavity, the heat of which cauſes the liquor to flow, and fill the receiver. In this liquor they dip little thin ſlips of wood, and afterwards inclоſe them in long leaves of trees. When the whole is dry, theſe pieces cover'd with roſin enlighten a whole chamber, but ſoon fill it with ſmoak.

Nothing is more common at Poulo-condor than the arrack nut, and leaf of betony. The iſlanders carry this laſt about with them, which they chew continually. No game is to be found in this iſland except wild fowl and ſtock-doves; but there are abundance of ſerpents and lizzards of a monſtrous ſize. There are ſerpents twenty-two feet long, and lizzards, which ſome call govenas, that are ſeven or eight feet long.

What is moſt curious in this iſland is the flying lizzard, and ſquirrel. The flying lizzard is little, and is not more than ſeven or eight inches long; the ſquirrel is of the ſize of thoſe in Europe. Both of them have very ſhort wings, which extend along the back, from the fore to the hinder feet; the ſquirrel has them cover'd with a thin fine hair:

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Thoſe of the lizzard are compos'd of a delicate pellicule. They are ſeen to fly from tree to tree, at the diſtance of twenty or thirty paces, but whether they could fly further is unknown. The lizzard has this further particular, viz. beneath his head a purſe of a conſiderable length, and pointed below, which is inflated from time to time, eſpecially when he flies.

The iſland of Poulo-condor is ſubject to the king of Camboge, which kingdom, as well as theſe of Cochinchina and Tſiompa are badly govern'd. Theſe nations have ſcarce any commerce with their neighbours, and have little order or union among themſelves. The cuſtoms and manners of theſe people approach in certain things to the cuſtoms of the Indians, and in many to theſe of the Chineſe. They believe the tranſmigration as well as the Indians, which, however, does not hinder them from eating all kinds of animals. They have a great veneration for the horſe and elephant, and have pictures of them in their houſes; the nobleſt recompence which, in their opinion, a man can have after his death, is, that his ſoul ſhould paſs into one of theſe beaſts. They look on Confucius as the chief philoſopher of the univerſe, and pay great honours to their dead anceſtors, and all thoſe of their own nation, who have during life diſtinguiſh'd themſelves. They have, for this purpoſe, in their houſes, and abroad, little chapels, where they burn incenſe, or little cakes of frankincenſe.

But the moſt ſacred place among them is the publick ſquare, in the midſt of which is erected a large beam, croſs'd by another near the top, which is a little inclin'd; probably they place on it a kind of colours, which they call touvo. Round it are placed certain little oratories,

where they make their profound proſtrations, burn a number of ſmall candles, offer rice, and ſacrifice victims, eſpecially goats. A great feaſt follows theſe ceremonies, wherein they never fail to get drunk with vaque, which is a kind of brandy diſtill'd from rice; then they have dancing, buffoonry, and often blows and quarrels.

The paſſage from Poulo-condor to China is ſcarce three hundred leagues, which they commonly perform in eight or ten days. The coaſts of the ſouthern parts of China are bordered with an infinity of little iſlands, in the midſt of which it is not eaſy to find the mouth of the river Canton. Nothing can be more charming than the proſpect which this river preſents. On each ſide are ſpacious plains of rice, green as the moſt beautiful meadows, in which the ſight is loſt, and which are interſected with a great number of canals; ſo that the boats which one ſees come and go at a diſtance, without ſeeing the water which bears them, ſeem to ſail on the graſs. At a greater diſtance one ſees riſing grounds covered with trees, and diſpos'd by art along the vallies, as the ancient theatre of the tuillery garden. All this is mixed with ſo many villages of a rural caſt, and ſo variegated, that none can be weary of ſeeing them, and muſt feel a regret to leave them.

The city of Canton is larger than Paris, and contains at leaſt as many people. The ſtreets are long, ſtrait, cloſe, and narrow. They are pav'd with large flat ſtones, which, however, are not found every where. There is a ſmall number of pretty broad ſtreets, where we here and there find very beautiful triumphal arches. There are ſome temples of their idols ſurrounded with the cells of their bonzes, which have a very ſingular and magnificent

nificent appearance. Confucius's hall, as well as the academy where the literati aſſemble to compoſe their exerciſes, are curious pieces of architecture. The gamens or palaces of their mandarins have likewiſe their beauty and grandeur, tho' not equal to what is call'd beautiful and grand in Europe.

The houſes inhabited by the people are very low, and almoſt all ſhops. The moſt beautiful parts reſemble pretty much the ſtreets of St. Germain, during the fair. There are almoſt every where as many people as at this fair, when moſt frequented; ſo that it is difficult to paſs and repaſs. We ſee few women, and moſt of the men in the ſtreets are poor people loaden with burdens; for there is no other method of tranſporting the goods and merchandize, but on the ſhoulders of men. Theſe porters have moſtly their heads and feet bare, tho' ſome of them have a large ſtraw hat, of an odd figure, to defend them from ſun and rain. What we have ſaid gives us a new idea of a city which has no reſemblance to Paris. Tho' there were nothing but houſes only, what effect would be produced on the eye by intire ſtreets, where one ſees no windows, and nothing but ſhops, cloſed for the moſt part with hurdles, or bamboo, inſtead of doors.

When we come from the country, and go from the old into the new city, we ſee a vaſt number of agreeable gates. It is remarkable that there are gates at the end of all the ſtreets, which are clos'd a little later than the city gates, ſo that every one muſt retire to his quarter as ſoon as the day begins to fail. This policy remedies a great many inconveniencies, and cauſes all to be as calm almoſt in in the night in this city, as if it was but one family.

The apartments of the mandarins have ſomething ſurprizing in them to ſtrangers. We muſt paſs a number of courts before we come to the place where they give audience, and receive their friends. When they go out, their retinue is majeſtic. The Tſonglour, a kind of mandarin, who has the ſuperintendency of two provinces, never goes abroad without an hundred men at leaſt. This train cauſes no trouble, ſince each one knows his poſt; a part go before him with different ſymbols, and very odd dreſſes. There is likewiſe ſeveral ſoldiers that march on foot: The mandarin is in the midſt of this attendance, ſeated on a high and richly gilt chair, which ſix or eight men carry on their ſhoulders. This cavalcade often takes up a whole ſtreet, while the people place themſelves on both ſides, and out of reſpect ſtand ſtill till all is paſs'd.

The bonzes are very numerous, and wear long robes that fall down to their heels, with huge ſleeves which very much reſemble thoſe of ſome European clergy. They live together in their pagods, as in convents, beg in the ſtreets, riſe in the night to adore their idols, ſing in ſeveral choirs, in a manner that has ſome reſemblance to ours. Yet they are very much deſpiſed by the better ſort of people, becauſe they know that moſt of them are perſons abandoned to debauchery.

Another particularity which we are not to omit, is, that there is a kind of floating city on the river Canton; the boats touch each other, and make a kind of ſtreets. Every boat or barge lodges a whole family, and like regular houſes, has all the neceſſary apartments. The poor people who live in theſe floating houſes, go in the morning either a fiſhing, or to labour in the rice fields, which are ſowed and reaped three times a year.

Let us finiſh this chapter by the deſcription of ſome particular animals. The horned fiſh, or the devil, has its body made like a cheſt, tho' ſmaller at one end, with a flat tail, very long, with four equal ſides, and almoſt of the ſame breadth from one end to the other. All its body is hard, and marked every where with hexagonal figures regularly placed, and mixed with ſmall aſperities, like ſhagreen.

The requin, or ſhark, is one of the moſt dangerous animals of the ſea; there are ſome of them taken above twelve feet long. He has a throat capable of ſwallowing a man whole. He has five rows of teeth, which are like a grove of ſteel points. He is always accompanied by ſeveral ſmall fiſh, which ſwim before him, and are called the ſhark's pilots. There are other ſmaller fiſh of a different ſort, which ſtick to his body, even when he is taken, and which they call ſuccais. A ſhark will ſometimes follow a ſhip two or three days in hopes of ſome prey.

The marſouin is a true ſea-hog. He has all over his body a thick fat, which is very white. He has no ears, but has on his head an opening, by which it is ſaid that he breathes. 'Tis certain he is ſometimes ſeen to raiſe his head above water, and replunge himſelf ſoon after. He has lungs, and all the inward parts reſembling a hog; his blood is warm and copious, he ſwims with incredible ſwiftneſs, and leaps ſometimes fifteen or twenty feet above the water. The marſouin, as well as the ſhark, brings forth her young like terreſtrial animals. The females have commonly, at one time, ten or twelve young, which are generally very fat.

There are two ſorts of flying fiſh; one ſmall, that has but two wings; the other large, which has four. The greateſt is not in length above a foot

foot or fifteen inches. They both fly a conſiderable way; and when the bonita, or gold fiſh, purſues them, we ſee them riſe from the ſea like a covey of partridges, and replunge themſelves at the diſtance of a hundred, or a hundred and fifty paces. The bonita leaps after them a great height; and if it fails of its deſign, it follows on the ſurface of the water, to catch them when they alight. This chace is a pleaſant ſight, eſpecially when there are a great number of fiſh, which purſue, and are purſued. This pleaſure is entire, when the birds of prey, as it ſometimes happens, join in the fray; then the flying fiſh has no retreat, either in air or water.

CHAP. XXIV.

The fabulous paradiſe of the Indians; their religion, temples, and ſacrifices; diſtinction of their tribes; extraordinary cuſtom of the labourers; maxims of the Indian phyſicians; manner in which they treat their ſick.

THE chorkam, or the paradiſe of the Indians, is the recompence of thoſe who have offered the famous ſacrifice of the Ognan. The moſt beautiful women are ſuppoſed to conſtitute the happineſs of this place, where there is a tree imagined to furniſh all that can be deſired.

The Indians acknowledge thirty millions of gods; there are three principal ones, whoſe functions are different. To the firſt, they attribute the creation of the world; to the ſecond, its preſervation; and to the third, the power of deſtroying it.

Theſe

Theſe three gods are independent of each other, and have each their reſidence; they have often fought together, and beheaded each other. They have likewiſe, as they ſay, often appeared on earth under different forms, as of a fiſh, a hog, &c. Every object that has been ſubſervient to theſe gods is deified, for which reaſon we ſee in almoſt all their temples, the figure of an ox, to which they offer ſacrifices, becauſe formerly one of their gods rode upon it. But what is moſt ſingular is, that theſe people have a god, whom they call Chriſten, born at midnight in a ſtable, and adored by ſhepherds. They obſerve a faſt on the eve of his feſtival, which they celebrate with great noiſe. The life of this god is a medley of infamous actions.

In this confuſion all the ſolemnity of the feſtival conſiſts, which always concludes with an exceſs of debauchery. The Indians ſeldom meet in their temples, where no light comes but by a narrow door. Thoſe who revere their gods, ſend ſufficient ſacrifices to the prieſt, which generally conſiſt of flowers, incenſe, rice, or pot-herbs. Generally none are preſent at the ſacrifice, which is offered in the following manner:

The prieſt prepares the repaſt in a corner of the temple; then he pours upon the idols ſeveral jars of water, and waſhes them for ſome time; he then puts fire on a potſherd, in which he puts incenſe, and preſents it to the noſtrils of each idol, pronouncing at the ſame time certain myſterious words. After this he puts on a plate, viz. four or five leaves ſtitched together, the rice and pot-herbs, and walking round the idols makes ſeveral bows to them, as it were to invite them to the feaſt; then he begins to eat with a keen appetite

petite what he has preſented to the deities he adores.

Moſt of the princes of theſe countries are extremely ſuperſtitious, and it coſts ſeveral of them large ſums to celebrate the feaſts of their idols. They ſometimes undertake long and tedious voyages, to carry conſiderable ſums of money to certain divinities, but theſe ſums ſoon fall into the hands of the Moors who are maſters of the country.

One of theſe princes orders one of his gods to be continually carried before him in an open vehicle, which is preceded by a horſe and an elephant, which he has made him a preſent of. The noiſe of ſeveral inſtruments brings together an incredible number of Indians who come to worſhip the idol. Now and then a herald commands ſilence, and makes a ſpeech in praiſe of this deity.

Theſe people are divided into tribes, as the Jews formerly were, with whom it ſeems they have had ſome commerce; for in cuſtoms, ceremonies, and ſacrifices, we diſcover many traces of the old law, which they have disfigured by a number of extravagant fables.

There is a tribe which bears the lingan; this is an infamous figure which they wear about their necks, to denote their devotion to one of their gods. They keep this with great care, and offer daily ſacrifices to it. They are perſuaded, that ſhould they once loſe it, nothing but death can atone ſuch a crime.

We read in their hiſtories, that one of theſe linganiſts having loſt his lingan, went to confeſs to his gourou, or ſpiritual father. He declared, that he ought to reſolve on death, and that his death only could appeaſe the anger of the gods, at the ſame time conducting him to a pond, in order to drown him. The linganiſt ſeemed contented; but he begged the favour of the gourou to lend him

him the lingan about his own neck, to perform, for the laſt time, a holy ſacrifice. As ſoon as he had got it he let it drop into the water; We are both now, cried he, without lingan, wherefore we ought in company to throw ourſelves into the pond to appeaſe the fury of our gods; and immediately he began to pull him by the legs, that they might ſhare the ſame fate; when the gourou taking the linganiſt by the hand, ſaid, Stay, my ſon, I can diſpenſe with the juſt penalty; I will repair your fault by giving you another lingan.

There is a very odd cuſtom in the claſs of labourers; for when they pierce their ears, or marry, they are obliged to cut off two of their fingers, and preſent them to the idol. They go on that day to the temple in triumph; and there, in preſence of the idol, they whip off in an inſtant two of their fingers with ſciſſars, and then apply the actual cautery, in order to ſtop the hemorrhage.

People are excuſed this ceremony when they preſent two fingers of ſolid gold to the idol. Others cut off the noſes of thoſe they can decoy, and their prince recompenſes them in proportion to the number of the noſes they bring him: he orders them afterwards to be carefully ſtrung, and hangs them up at the temple-doors of their goddeſſes.

In France we mark criminals with a flower-deluce. In the kingdom of Carnate, they give money to have their ſhoulders burnt. Men and women croud to the gourou, who has always a red hot iron in a chaffing-diſh. He begins the ceremony by being well paid, without which neither prayers nor tears can oblige him to do the favour they aſk of him. When he has got the money, he charitably applies to their ſhoulders the red hot iron, which imprints the images of their gods,

without their ſhewing the leaſt impatience during the operation.

Their government is as odd and ſtrange as their religion, ſince the prince's will takes place of all juſtice. The common people are in a kind of ſlavery, and poſſeſs no lands which they can properly call their own, ſince they all belong to the prince, who orders them to be cultivated by his ſubjects. At the harveſt time he orders the produce to be carried off, and ſcarce leaves ſubſiſtence for the miſerable labourers. It is a crime in private perſons to have money; and thoſe who have it, bury it with care; otherwiſe, under a thouſand falſe pretences, they find means of defrauding them of it. Their princes only exerciſe theſe cruelties towards the people, becauſe the Moors, who have inſlaved the Indies, demand exorbitant tributes of them, which they are obliged to furniſh, otherwiſe the country would be plundered.

The greateſt crimes are not puniſhed with death, and provided they can but find money, they are ſure of impunity.

In Europe the chief families are in poſſeſſion of thrones, but of all the princes of Carnate, there is not one of the firſt claſs, and ſome of them are of the loweſt tribes. Whence it happens, that there are ſome princes, whoſe cooks would think themſelves diſhonoured, and would be ſo in effect, if they ſhould eat with their maſters; and their relations would expel them from their tribe, as perſons loſt to honour.

Phyſicians are not wanting in the kingdom of Carnate; but they are true quacks, very ignorant, and make experiments at the expence of thoſe they attend. Their drugs and medicines are found in the woods, and conſiſt of certain ſimples, from which they expreſs the juice, and give it to the patient.

patient. In fevers, of thirty or forty days duration, they only give the ſick perſon a little hot water. Their maxim is to remove the diſtemper by weakening nature, and if the patient dies, It is, ſay they, the violence of the diſeaſe which carries him off, and not the want of proper nouriſhment.

It remains that we ſpeak of two famous ceremonies that are in uſe in the kingdom of Carnate. The firſt of theſe is the pavadam, which is obſerved in the following manner.

One of the chief daſſeris (theſe are the men who make profeſſion of particularly honouring the god Vichnou) gives himſelf a wound in the thigh or ſide; inſtantly the air reſounds with cries, noiſe, the ſound of horns, and braſs plates, which the daſſeris ſtrike againſt each other. They raiſe a kind of ſeat for the mad fool, who has thus wounded himſelf; and if we may believe them, they leave him without drink, meat, or even dreſſing his wound, until ſome famous daſſeris comes to raiſe this pretended dead man to life. For which reaſon it is always expenſive to him on whom the pavadam is performed.

As the Indians are perſuaded, that if the dead be not quickly rais'd, ſome public misfortune will happen, every one is eager to accommodate the affair. When they are agreed about the ſum that is to be paid, the noiſe and outcries are renewed; and we hear a multitude of confus'd voices, which bawl out Govinda. Then he who is to call the dead to life again, after ſeveral prayers and grimaces, as if he was poſſeſs'd by his god Govinda, orders the tent to be open'd, on which the pretended dead man immediately begins to dance with the reſt of the daſſeris; after which he is conducted in triumph to the city, and the ceremony is ended by a great feaſt, to which they invite

invite the daſſeris, and alſo preſent them with pieces of ſtuff.

The Moors do not pay theſe impoſtors; for if it happens, which is very uncommon, that the daſſeris perform this kind of pavadam in the places where they are maſters, it is by blows that they raiſe them to life, and diſſipate the tumult.

After the pavadam comes the famous ſacrifice of egnam, which is celebrated with extraordinary pomp during nine days. They ſacrifiſe a ram in it, and offer the ſacrifice out of the city. The high prieſt, whom they call ſaumeage, is aſſiſted by twelve other miniſters, or bramins, who are dreſs'd in new habits of a yellow colour. They build for this purpoſe a houſe out of the city, where the ſacrifice is to be perform'd. They dig a ditch, in which they light a fire, which is to burn night and day, and which for this reaſon they call the perpetual fire; they throw into it different kinds of odoriferous wood, and pour in oil, butter, and milk, while they recite certain prayers taken from the books of their law. They then proceed to the ſlaughter of the ram. They tie his feet and noſe, and ſtop his noſtrils and ears to deſtroy reſpiration; after which the ſtrongeſt prieſts give him blows with their fiſts, while they pronounce certain words with a loud voice. When he is half dead, the high prieſt opens his belly, and draws out the peritonæum with the fat, which is put upon a little bundle of thorns, which they hang over the perpetual fire in ſuch a manner, that the fat, as it melts, falls in it drop by drop. The remainder of the peritonæum, and the fat, being mixed with butter, is fry'd, and all the ſacrificers muſt taſte of it. They diſtribute part of it to the moſt conſiderable perſons of the aſſembly,

assembly as a holy thing, while the rest of the victim is cut into morsels, which they boil, and throw in little pieces into the fire; for nothing must remain of this kind of holocaust. The sacrifice being finish'd, they give a feast to a thousand bramins, which is likewise practis'd during the whole nine days.

On the ninth day the high priest is carried into the city in a chariot, drawn by bramins, and the ceremony ends by presents made to these, and especially to the high priest and his twelve assistants. These presents consist of pieces of cotton and silk, and large ear-rings of gold, which reach almost to their shoulders. This is the mark which distinguishes the high priest, and the chief doctor of the law.

CHAP. XXV.

The stuffs in the Indies; their manner of designing flowers, preparing colours, and applying them; a secret to make indigo, how they prepare it; how they bleach the web to prepare it for the reception of different colours; description of the Indian pencils.

THE Indian webs derive their value and price from the sprightliness, tenacity, and duration of the colours with which they are painted, which are so contriv'd, that instead of losing their lustre when wash'd, they become more beautiful.

I.

Before they begin to paint the stuff, they must give it the following preparations. First,

Take a piece of new and cloſe ſtuff, the uſual length of which is nine cubits, and half bleach it, in the manner we ſhall hereafter mention. Secondly, Take dried fruits call'd cadou, or cadoucaie, to the number of twenty-five, or, to ſpeak more exactly, the weight of three palams. This Indian weight is equal to an ounce and half a quarter, ſince forteen palams and a quarter make a pound: Break this fruit to get out the kernel, which is of no uſe, and when dry reduce it to powder. The Indians for this purpoſe uſe a flat ſtone, and a cylinder, which is likewiſe of ſtone, and which they employ much after the manner of paſtry-cooks, when they prepare their paſte. Thirdly, Paſs this powder thro' a ſieve, and put it in about two pints of buffalo's milk, increaſing the milk and weight of the cadou, according to the quantity of the ſtuff. Fourthly, A little time after dip the ſtuff as often as you find it neceſſary, that it may be well moiſten'd with the milk. You muſt then take it out, wring it ſtrongly, and dry it in the ſun. Fifthly, The next day you muſt ſlightly waſh the ſtuff in ordinary water, wring out the water again, and after drying it in the ſun, you muſt leave it at leaſt a quarter of an hour in the ſhade.

After this preparation, which may be call'd internal, we muſt proceed to another, which, if you pleaſe, you may call external, becauſe it regards only the outſide of the web. To make it ſmooth, and that nothing may obſtruct the pencil, they fold it in four or ſix doubles, and with a piece of wood for that purpoſe, beat it upon another piece of ſmooth wood, obſerving to beat it equally; and when it is ſufficiently beaten in one direction, they fold it differently, and repeat the ſame operation.

It is proper to make here ſome obſervations, which will not be intirely uſeleſs. Firſt, This fruit call'd cadou, is found in the woods, upon a tree of a moderate height, which grows almoſt every where, but principally in Malleialam, a mountainous country, as its name ſignifies, which extends itſelf conſiderably along the coaſt of Malabar. Secondly, The fruit dried, which is of the ſize of a nutmeg, is employed in the Indies by phyſicians, and is an ingredient in thoſe medicines which they give to women newly deliver'd. Thirdly, tho' it is very ſharp to the taſte, yet if one keeps a little bit of it ſome time in the mouth, he will find in it ſomething of the taſte of liquorice. Fourthly, If after we have moiſten'd moderately, and chew'd a piece in the mouth, we take it in our fingers, we find it glutinous: It is partly owing to theſe two qualities, viz. its ſharpneſs and unctuoſity, that we are to attribute the adherence of the colours in the Indian ſtuffs, but eſpecially to its ſharpneſs. This is at leaſt the opinion of the Indian painters.

It is long ſince they have ſought after the art of fixing colours in Europe, and giving them that adherence which is ſo much admir'd in Indian ſtuffs; perhaps the ſecret would be found out, if they once perfectly underſtood the nature of the cadoucaie, eſpecially its principal quality, which is its ſharpneſs. Might they not find out analogous fruits in Europe? Do not galls, and medlars dried before they are ripe, and the bark of pomgranate, participate very much of the qualities of the cadou?

Let us add to theſe obſervations ſome experiments that have been made upon the cadou. Firſt, Lime diſſolv'd in an infuſion of cadou produces green; if there is too much lime, the colour be-

comes brown; if they pour upon this brown tincture too great a quantity of this infuſion, the colour appears firſt whitiſh, and afterwards the lime is precipitated to the bottom of the veſſel. Secondly, A white cloth dipp'd in a ſtrong infuſion of cadou, contracts a yellowiſh colour, that is very faint and pale; but when the buffalo's milk is mix'd with it, the linnen takes a faint orange colour. Thirdly, Having mix'd a little of our European ink, with the infuſion of the cadou, they have obſerv'd in the ſeveral parts of the liquor a blueiſh pellicule, like that which is found on ferruginous waters, with this difference, that this pellicule was within the water at ſome diſtance from the ſurface. It would be eaſy to make experiments upon the cadou, in Europe becauſe it may be had from the Indies, this fruit being very cheap there.

As for buffalo's milk, which they mix with the infuſion of cadoucaie, they prefer it to cow's milk, becauſe it is much fatter and more unctuous. This milk produces the ſame effect in theſe ſtuffs, as gum, and other preparations uſed for paper, that it may not ſink. In reality they have experienced that our ink painted on a web prepar'd with cadou, extends itſelf very much, and penetrates to the other ſide, which is alſo the fault of the black paint of the Indies.

What yet remains to obſerve is, that they do not uſe indifferently all ſorts of wood to beat the ſtuffs, and ſmooth them. The woods on which they put them, and that with which they beat them, are generally the tamariſk, or another tree call'd porchi, becauſe they are extremely cloſe-grain'd when they are old. What is uſed in beating, is call'd catta pouli. It is round, a cubit or thereabouts long, and as thick as the thigh, except at the extremity, which ſerves as a handle. Two

workmen

workmen ſeated oppoſite to each other, beat thoroughly the ſtuff. The ſight and experience has taught them by degrees to know when the ſtuff is ſufficiently beaten and ſmooth'd as it ſhould be.

II.

The web being thus prepared, they muſt deſign on it flowers, and other things, which they want to paint. The Indian workmen have nothing particular in their manner, but uſe the ſame method as our embroiderers. The painter takes care to draw his deſign on paper, pricks the principal figures with a fine needle, then applies this paper to the ſtuff, and afterwards paſſes the powder of charcoal thro' the prickings, by which means the deſign is traced upon the ſtuff. Every kind of charcoal is proper for this purpoſe, except that of the palm-tree, becauſe in the opinion of the Indians, it would tear the web. Afterwards over theſe figures they draw with a pencil black or red, as the places require; after which the work is compleated in its deſign.

The principal concern now is, to paint colours on this deſigning. The firſt colour applied is black, which however is not much uſed, except for certain outlines, and the ſtalks of flowers. They prepare it in the following manner: Firſt, They take ſeveral pieces of the ſcoriæ of iron, and ſtrike them againſt each other, to make the moſt brittle parts fall off, and reſerve ſuch pieces as are nine or ten times as large as an egg. Secondly, They add four or five pieces of old or new iron; for it is not material which is us'd. Thirdly, Having laid the iron and its ſcoriæ on the ground, they make a fire over them, with the leaves of the banana tree, which are beſt for this purpoſe. When the iron and the ſcoriæ become red hot,

they take them out, and let them cool. Fourthly, They afterwards put them into a veſſel that contains eight or ten pints, and pour hot canje upon them; that is to ſay, water in which they have boil'd rice, taking care that there be no ſalt in it. Fifthly, They expoſe all to the hotteſt ſun; and after having left it a whole day, they pour the canje on the ground, and fill the veſſel with callou; that is to ſay, with palm, or cocoa wine. Sixthly, They expoſe it again to the ſun for three or four days together, and the colour which ſerves for black is then prepared.

There are ſome obſervations to be made on this preparation: The firſt is, That you muſt not put above four or five pieces of iron to eight or nine pints of canje, otherwiſe the tincture would grow reddiſh, and corrode the ſtuff. The ſecond regards the quality of the palm-wine, or that diſtilled from the cocoa-tree, which grows ſo ſour in a few days, that they make vinegar of it, which they uſe inſtead of yeaſt, to ferment paſte. The third is, That the want of this wine is ſupplied by the kevaron, a ſmall grain, which a great many Indians live upon. This grain for colour and ſize very much reſembles the ſeed of turnips; but the ſtalk and leaves are quite different. They employ likewiſe the varagon, another fruit, which they prefer to the kevaron. They pound about two handfuls, which they afterwards boil in water, and pour this water into the veſſel, where the iron and its ſcoriæ are. They add the bigneſs of two or three nutmegs of the native ſugar of the palm tree, taking care not to put more, otherwiſe the colour would not laſt long, and would be effac'd by waſhing. The fifth is, That to make the colour finer, they join to the callou the kevaron, or prepar'd varagon, as we have ſaid. The ſixth and laſt

laſt obſervation is, That this tincture would not appear very black, nor hold upon a ſtuff that was not prepar'd by the cadou.

III

After having deſigned and painted with black all the places that require this colour, they with red, deſign the flowers and other parts that muſt be finiſhed with this colour. It muſt be obſerved they have now only drawn the outlines; for it is not proper to paint with red, ſince it is neceſſary previouſly to apply the blue, which requires ſeveral preparations.

They muſt firſt put the web in boiling water, and leave it for half an hour, and if they put with the ſtuff two or three cadous, the black will be more beautiful. In the ſecond place, having diſſolved ſheeps and goats dung, in this water, they put the web in it to ſteep, and leave it a night, but muſt take it out the following day, and expoſe it to the ſun.

When the Indian painters are aſked what the deſign of this laſt operation is, they all agree, that it takes from the web that quality it received from the cadoucaie, which if it ſtill preſerved the blue which they afterwards put on, would become black.

Another reaſon makes this operation neceſſary, which is to render the ſtuff whiter; for we have mentioned before, that it was but bleached, when they begin to paint it. When they expoſe it to the ſun they do not let it entirely dry; but pour water on it now and then for a day, after which they beat it on a ſtone on the edge of the river, but not with a beating ſtaff as they do in Europe. The Indians fold it in ſeveral doubles, and beat

it ſtrongly on a ſtone, in the ſame manner as lock-ſmiths and farriers ſtrike the iron on the anvil with their large hammers.

When the web is ſufficiently beaten in a certain poſition, they beat it in another, tho' twenty or thirty ſtrokes are ſufficient for this operation, after which they dip the ſtuff in a canje of rice. The beſt method, if they had the materials, would be to take kevaron, pound it, put it on the fire with water, and before this water is inſpiſſated, to dip the ſtuff, take it out immediately, let it dry, and beat it with the cattapoulli, as they did in the firſt operation.

As the blue is not painted with a pencil, but is applied by dipping the ſtuff in prepared indigo, there is a neceſſity of painting or covering the web with wax, generally every where, except the places where there is black, blue, or green. This wax is painted with an iron pencil, as ſlightly as poſſible on one ſide, taking care that no places are left without wax, except ſuch as we have mentioned, otherwiſe there would be blue ſpots which could not be waſhed out. This being done, they expoſe to the ſun the ſtuff waxed in this manner; but they muſt be careful, that the wax melt not, more than is neceſſary to penetrate to the other ſide. Then they quickly withdraw it, turn it, and rub the whole ſurface of it ſtrongly with their hands. The better method would be to uſe a copper veſſel with a round bottom, ſince by this means the wax would be diffuſed every where, even to the places of the other ſide, which are to be tinged with blue. This preparation being finiſhed, the painter gives the web to the blue-dyer, who returns it in a few days; for it is to be obſerved, thaty the are not ordinary painters, but ſkilful workmen or particular dyers, who are employed for this purpoſe.

Their

Their indigo is thus prepared. They take the well dried leaves of averei, or indigo tree, and reduce them to powder which they put in a very large veſſel full of water. They ſtir it ſtrongly in the ſun with a bamboo ſplit in four parts, whoſe lower extremities are conſiderably diſtant from each other. They then let the water run through a ſmall hole in the lower part of the veſſel, at the bottom of which the indigo remains. They take it out, and divide it into pieces about the ſize of a pigeon's egg. They then ſpread aſhes in a ſhade, on which they lay the web, and upon it dry the indigo.

After this nothing remains but to prepare it for thoſe webs they deſign to colour. The workman, after having reduced to powder a certain quantity of indigo, puts it into a great earthen veſſel, which he fills with cold water, adding a proportionable quantity of lime, reduced likewiſe to powder. Then he ſmells at the indigo, to know if it is ſour; and in that caſe he adds ſtill more lime, as much as is neceſſary to make it loſe that ſcent. Then taking about a quarter of a buſhel of the ſeeds of tavarei, he boils them in water for a day and a night, keeping the veſſel full of water. After this he pours out the whole, water and ſeeds, into the veſſel of the prepared indigo. This dye is kept for three days; and they muſt take great care to mix all well together, by ſtirring it four or five times a day with a ſtick. If the indigo ſhould ſtill have a ſour flavour, they add a proportion of lime.

The blue being thus prepared, they dip the web in it, after having folded it double, in ſuch a manner that the right ſide of the ſtuff may be tinged, while the wrong ſide is not touched, after which they let it ſteep about an hour and half, and then

then take it out tinged with blue in the proper places. One sees by this, that the Indian stuffs may be said to be dyed, as well as painted.

The length and multiplicity of all these operations to dye in blue, naturally excites a doubt, viz. Whether they ought rather to paint their blue flowers with a pencil, especially when there is little of this colour in the design. The Indians agree, that this might be done; but, they say, blue thus painted would not hold; and that after two or three washings it would disappear.

The tenacity, and adherence of the blue colour ought to be attributed to the seeds of tavarei, which grain grows in the East-Indies, tho' not every where; and it is of a clear olive colour, cylindrical, of the thickness of a line, and, as it were, cropt at each end. It is difficult to break it with the teeth; and tho' it is insipid, yet it leaves a little bitterness in the mouth.

V.

After the blue, the red must be painted; but they must first take the wax off the web, bleach it, and prepare it to receive this colour. The wax is taken off in the following manner.

They put the web in boiling water, by which the wax is melted, then diminishing the fire, that it may float on the surface more easily, they take it out with a spoon as carefully as possible; they make the water boil again, that they may obtain the remainder of the wax; and tho' it is become very dirty, yet it will still serve for the same purpose.

To bleach the web, they wash it in water, beat it nine or ten times upon a stone, and put it to steep in other water, wherein they have dissolved sheeps

ſheaps dung. They waſh it again, and expoſe it three days to the ſun, taking care to throw a little water on it from time to time. They then dilute in cold water a kind of earth called ola, uſed by the bleachers; and in this water they leave the web for an hour. Then they kindle a fire under the veſſel; and when the water begins to boil, they take out the web, to waſh it in a pond, on the border of which they give it about four hundred ſtrokes on a ſtone, and wring it ſtrongly. Then they ſteep it for a day and a night in water, wherein they have diſſolved a little cows dung, or that of a female buffalo. After this they take it out, waſh it again in the pond, and unfold it to ſpread it half a day in the ſun, and now and then throw a little water upon it. They then put it on the fire in a veſſel full of water, and when the water has boiled a little, they take out the web to waſh it again in the pond, beat it a little and dry it.

In a word, to make the ſtuff proper to receive and retain the red, they muſt reiterate the operation of the cadoucaie, as has been ſaid in the beginning; that is to ſay, that they dip the web in the ſimple infuſion of the cadoucaie, that they waſh it, beat it on a ſtone, let it dry, after this ſteep it in buffaloes milk, then ſtir it, and rub it for ſome time with their hands; that when it is thoroughly impregnated with the liquor, they take it out, wring it, and dry it; that if there are red flowers to be made with white ſtreaks and other deſigns, they paint theſe with wax, and then with an Indian pencil they lay on the red which they had prepared beforehand. Children commonly paint the red, becauſe it is leſs painful, unleſs great accuracy is required.

We now proceed to the manner of preparing the red. Take ſharp water, that is to ſay, water of par-

particular wells in which this taſte is found. Into two pints of water, put two ounces of alum reduced to powder; add to it four ounces of red-wood named vertangen, or of the wood ſapan, reduced likewiſe to powder. Expoſe all to the ſun during two days, taking care that nothing ſharp or ſalt fall into it: otherwiſe the colour would loſe much of its ſtrength. If they would have the red deeper, they add alum; and pour more water into the veſſel, when they would have it fainter; by which means they make the red for the ſhadings and variations of this colour.

VI.

In order to produce a colour reſembling the lees of wine with a violet caſt, we muſt take a part of the red before mentioned, and an equal part of the black, whoſe compoſition we before ſpecified. They then add an equal quantity of canje, drawn from rice kept a month; and by this mixture the intended colour is produced. A ridiculous piece of ſuperſtition prevails among theſe people with regard to this ſharp canje. He that has it muſt make uſe of it every day in the week; but on ſundays, thurſdays, and fridays, he muſt refuſe it to others who want it. It would be, ſay they, to drive their god from their houſe, to give it on thoſe days. Inſtead of this vinegar of canje, they may make uſe of the vinegar of callou, or the wine of the palm-tree.

VII.

We may compoſe various colours of a reddiſh caſt, about which we need not at preſent give any directions, only it is to be obſerved, that they muſt be laid on at the ſame time, with the deep red; that is to ſay, before we proceed to the

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operations of which we ſhall ſpeak, after we have made ſome obſervations upon what precedes.

Firſt, theſe wells, whoſe water is acrimonious, are not common in the Indies, ſince frequently there is not one of them to be found in a whole city. 2dly, This ſpecies of water, according to ſome trials the Europeans have made, has not the taſte the Indians attribute to it, tho' it ſeems to be worſe than ordinary water. 3dly, They prefer this water to any other, that the red may be more beautiful according to the opinion of ſome, and according to others there is a neceſſity of uſing it, becauſe the red would not hold. 4thly, It is from Achen they import good alum, and good ſapan to the Indies.

Whatever virtue this ſharp water may have to render the red adherent, it would not ſufficiently hold nor be beautiful, if they did not mix with it the tincture of imbourre. This is what they commonly call chaiaver, or root of chaia. But before they uſe it, they muſt prepare the web, by waſhing it in the pond in the morning, plunging it ſeveral times, that it may imbibe the water, which they have principally in view, and which is not done ſoon, on account of the unctuoſity of the buffaloes milk, in which they had before dipped the web, after which they give it about thirty blows on a ſtone, and then half dry it.

While they uſe this method with the web, they muſt likewiſe prepare the root of chaia, which is done in this manner: take a proper quantity of this root well dried, reduce it to a fine powder, by pounding it in a ſtone, and not wooden, mortar, which is expreſly recommended: and now and then throw into it a little of this acid water. Take about three pounds of this powder, and put them into two meaſures of common water warmed

ed a little, and take care to agitate the whole. Tho' this water becomes red, yet it only gives the web a faint colour; ſo that it is never uſed, except to give the laſt perfection to the other red colours.

For this purpoſe they muſt dip the web into this dye; and that it may take the colour well, agitate and turn it every way for half an hour, while they augment the fire under the veſſel. When the hand can no longer ſupport the heat of the dye, thoſe who would have their work compleat, take out the web to wring it, and dry it well, which they do for this reaſon; when they paint the red, ſome drops of it muſt neceſſarily fall where they ſhould not be; and tho' the painter is as careful to wipe them off with his finger, as we do when ink falls upon the paper on which we write, yet ſome ſtains of the chaia are always to be ſeen. In order to prevent this, they withdraw the web, and dry it; and the workman looks for the ſpots, and takes them out as well as he can with lemon juice.

The ſpots being taken out, they put the web again into the dye, and augment the fire, till the hand can no longer endure the heat; then they take care to turn it over and over for half an hour; and towards the evening augmenting the fire, they make the dye boil for an hour or thereabouts. Then they put out the fire; and when the dye is tepid, they take out the ſtuff, which they wring thoroughly, and keep it moiſt till the next day.

Before we proceed to conſider other colours, it is proper to ſay ſomething of the chaia. This plant grows wild, tho' it is alſo ſown, on account of the abſolute neceſſity they have for it. It riſes no higher above ground than half a foot, has leaves of a bright green, about two lines broad, and about five or ſix long. The flower is very ſmall,

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and blueiſh, and the ſeed is not larger than that of tobacco. This little plant ſometimes ſends a root four feet deep into the earth, but this ſpecies is not the beſt, ſince it is far inferior to that whoſe root is only a foot, or a foot and a half long. This root is very ſmall, tho' it runs deep into the earth, and it neither ſhoots to the right or left, but very few and very ſmall filaments. It is yellow when freſh, and becomes brown when dry. It is only when it is dried, that it gives a red colour to water, on which they have made a particular experiment. A workman had ſteeped ſome of this root in water, which was become red. During the night-time an accident had ſpilt this liquor; but he was much ſurprized to find on the next day, at the bottom of the veſſel, ſome drops of a yellowiſh colour. This circumſtance, no doubt, proceeded from his uſing the beſt ſpecies of the chaia. In a word, when the workmen reduce this root to powder, by pouring in a little water, as has been ſaid, it generally aſſumes a ſaffron colour. We muſt obſerve, that round this veſſel, which was thrown down, there was fixed a pellicule of a beautiful violet colour. This plant is ſold in dry parcels; they cut off the top, where the dried leaves are, and uſe only the roots for this dye.

As the web has been dipped intirely in this dye, and conſequently tinged with the colour, it may be taken out without any fear of its ſuſtaining the ſmalleſt loſs by the following operations, which are the ſame with theſe mentioned before; that is to ſay, we muſt waſh the ſtuff in a pool, beat it ten or twelve times on a ſtone, bleach it with ſheeps treadles, and the third day ſoap, beat, and dry it, throwing a little water on it, now and then, leave it moiſt for a night, waſh it next day, and dry

dry it in the evening. Laſtly, about noon they waſh it in warm water, to take the ſoap and dirt from it, and then dry it thoroughly.

VIII.

The green which they paint on the ſtuffs requires likewiſe due preparations. Take a palam, or a little more than an ounce of the flower of cadou, an equal quantity of cadou, a handful of chiaver, and if you would have the green finer, add the bark of a pomgranate. After having reduc'd theſe ingredients to powder, put them into three bottles of water, which you muſt boil to three-fourths: pour out this tincture into a veſſel, paſſing it through a linen cloth. To a bottle of this tincture, put half an ounce of alum in powder; ſhake ſometimes the veſſel, and the colour will be prepar'd.

If you paint with this colour on blue, a green will be produc'd; wherefore when the workman has painted his ſtuff blue, he takes care not to paint with wax the places where he deſigns to paint green, to the end that the ſtuff already painted blue may be in a condition of receiving the green in proper time. It is ſo neceſſary to paint upon the blue, that they would have but a yellowiſh colour, if they painted on white ſtuff.

But it is to be obſerv'd, that the green does not laſt like the blue and the red; ſo that having waſhed the ſtuff four or five times, it diſappears, and nothing remains but the blue, upon which they had painted it. There is notwithſtanding a way of fixing this colour; ſo that it will laſt as long as the ſtuff, which is done in the following manner: Take the onion of a banana tree, bruiſe it freſh, and extract the juice. To a bottle of green

green tincture put four or five ſpoonfuls of this juice, and the green will become adherent and indelible, tho' this juice makes the green loſe a part of its beauty.

IX.

We ſhall now ſpeak of the yellow, which requires no long explication, ſince the colour which ſerves for green in painting on blue, ſerves alſo for yellow in painting on white ſtuff. But this colour is not very laſting, and diſappears after having been waſh'd a certain number of times; yet when they content themſelves with, ſoaping lightly theſe ſtuffs, waſh them in ſour whey mix'd with the juice of lemon, or ſteep them in water, wherein they have put a little cow's dung, which they have ſtrain'd through a cloth, theſe fading colours laſt much longer.

X.

The Indian pencils are nothing elſe but a little piece of bamboo-wood, ſharpen'd and ſplit about an inch at the point. To this they fix a ſmall piece of ſtuff dipp'd in the colour, which they want to paint, preſſing it with their fingers, in order to ſqueeze it out. That which they uſe for painting on wax is of iron, three fingers breadth, or a little more in length, and ſmall at the top, which is inſerted in a little bit of wood, which ſerves as a handle to it. It is ſplit at the end, and forms a circle in the middle, round which they fix a quantity of hair as large as a nutmeg, and theſe hairs abſorb the warm wax, which gradually flows from the extremity of this kind of pencil.

CHAP. XXVI.

Discovery of a new synagogue; of the Jews at Caifomfou, the capital of the province of Honan, in China.

THE most remarkable things in this newly discovered synagogue, are the inscriptions of the ancient Jews, some of which are in Chinese, and others in their own language. They readily shew their kints, or books of religion, and even let persons enter into the most secret places of their synagogue, where it is not permitted themselves to enter. This is a place reserv'd for their cham-kia, that is to say, the head of the synagogue, who never enters without a profound respect.

Upon certain tables there are thirteen kinds of tabernacles, each of which is surrounded with little curtains. The holy kint, or the pentateuch of Moses, is contain'd in each of these tabernacles, twelve of which represent the twelve tribes of Israel, and the thirteenth Moses. These books are written upon long parchments, in a fair and clear character, and rolled on sticks. One of these books was happily saved from the great inundation of the river Hoambo, one of the greatest rivers of China, which overflowed the city of Caifomfou, capital of the province of Honan. As the letters of this book have been wet, and are almost effac'd, these Jews have taken twelve copies, which they preserve carefully in the twelve tabernacles before-mention'd.

In two other places of this synagogue, there are several old coffers, wherein they preserve with care

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a great number of little books, into which they have divided the pentateuch of Moſes, which they call takien, with other books of their law. At their prayers they uſe theſe books; ſome of which are written in Hebrew; ſome are new, ſome old, and half torn; but the whole are preſerv'd with more care than if they were gold or ſilver. There is in the midſt of their ſynagogue a magnificent high chair, with a beautiful embroider'd cuſhion. This is the chair of Moſes, on which on ſabbaths, or the moſt ſolemn days, they place the pentateuch and read it. One finds there likewiſe a vanſcripai, or a picture on which the emperor's name is written, but there are neither ſtatues nor images. Their ſynagogue fronts the weſt, and when they pray to God, they turn their faces to that quarter, and worſhip him under the names of Tien, Cham-tien, Cham-ti, Teovanvoetcher; all which ſignify the governor of the univerſe. They have taken theſe names from Chineſe writings, and make uſe of them to expreſs the ſupreme being, or firſt cauſe.

In coming from the ſynagogue there is a hall, where one ſees a great number of perfume-veſſels, and this is the place where they honour their chingins, or the great men of their law. The largeſt of theſe veſſels, which is conſecrated to the patriarch Abraham, the head of their law, is placed in the midſt of this hall. After it are placed thoſe of Iſaac, Jacob, and his twelve children, whom they call Chel-cumpaiſe, the twelve lineages or tribes of Iſrael; then follow thoſe of Moſes, Aaron, Joſhua, Eſdras, and ſeveral illuſtrious perſonages, both men and women.

If we compare the names and chronology of Geneſis, Exodus, Leviticus, Numbers, and Deuteronomy, which compoſe the pentateuch of Mo-

ſes, we ſhall find that theſe books have an exact conformity with the pentateuch, which theſe Jews preſerve with ſo much care, which they call bereſith, veeleſemoth, vaiiera, vaiedabber, and haddebarim. They divide them into fifty-three volumes; Geneſis into twelve, Exodus into eleven, and the ſubſequent books into ten volumes each, which they call kim.

As for the other books of the bible, they have ſome of them, but want the others, and ſome they have no knowledge of. What ſeems aſtoniſhing is, that their ancient rabbins have mixed ſeveral ridiculous fables with the true facts of ſcripture, and this even in the five books of Moſes; which gives room for ſuſpicion, that theſe Jews may be Talmudiſts *, who corrupt the ſenſe of ſcripture.

Theſe Jews, who are call'd in China Tiao-kin-kiao, whether they be Talmudiſts or not, obſerve ſeveral of the ceremonies of the old law, for example, circumciſion, which they ſay began with Abraham; the feaſt of unleavened bread; the paſchal lamb, in memory and thankſgiving for their deliverance from Ægypt, and their paſſage through the red ſea; the ſabbath likewiſe, and ſeveral other feſtivals of the Old Teſtament.

The firſt Jews that appear'd in China † came under the dynaſty of the Hans, and at firſt there were ſeveral families of them, but their number

* The Talmud is a book very much eſteem'd by the Jews, becauſe it contains their laws, their cuſtoms, and the predictions of their rabbins. Thoſe who follow the doctrine of this book, are call'd Talmudiſts.

† Of the twenty-two families who have poſſeſſed the empire of China ſince the year 2697, before the birth of Chriſt, the family of Han is the fifth, and one of the moſt illuſtrious, ſince it has furniſhed twenty-five emperors to China, and govern'd that nation for 426 years, from the year 206, before the birth of Chriſt, till the year 220, after his birth.

ber being diminiſh'd, there remain at preſent only ſeven, who contract alliances with each other, without mixing with the idolaters, with whom they have nothing common, either in reſpect of books, or religious ceremonies; nay, even their muſtachoes are turn'd in a different manner.

They have no ſynagogue, but in the capital of the province of Honan, where there is no altar but only the chair of Moſes, with a perfume-veſſel, a long table, and great candleſticks, with tallow candles. Their ſynagogue has ſome ſimilitude to the European churches, and is divided into three iſles, the middle one of which contains the table of perfumes, Moſes's chair, and the van-ſcripai, or picture of the emperor, with the tabernacles, where they keep the thirteen copies of the kchia-kim, or pentateuch of Moſes. Theſe tabernacles are made like arches; and this iſle in the middle ſerves for the choir of the ſynagogue. The two other iſles are deſtin'd for prayer and adoration; and there is a beautiful walk round the whole inſide of the ſynagogue.

There were formerly, and are now among them, batchelors, and kien-ſens, who are a degree above the batchelors. All theſe learned Jews agree, that they ſhould honour Confucius in the ſame manner as the other learned gentiles honour him, and aſſiſt with them in the ſolemn ceremonies that are perform'd in the halls of their grandees. In ſpring and autumn they pay their anceſtors the honours uſual in China, in the hall which is near their ſynagogue, tho' they do not indeed offer to them hogs-fleſh, but that of other animals. In the common ceremonies they are content with preſenting to them china veſſels full of ſweat-meats and preſerves, which they accompany with profound bows and proſtrations. In the hall of their

dead they have neither pictures nor images, but only some perfume-vessels; yet we must except the mandarins, for whom only they put in the tsutam, or hall of their ancestors, a picture in which their name, and the degree of their mandarinship are mark'd.

These Jews in their inscriptions call their law the law of Israel, yselao-kiao: they say, that their ancestors came from a western kingdom, called the kingdom of Judah, which Joshua conquered after their departure from Egypt, and that the number of the Jews who came from Egypt was sixty vans, that is to say, six hundred thousand souls.

They speak of the books of Judges, David, Solomon, and Ezekiel, who animated the wither'd and dry bones of Jonas, who was three days in the whale's belly; whence we may conclude, that beside the pentateuch, they have several other books of the scripture.

Their alphabet has twenty-seven letters, but commonly they only make use of twenty-two, which agrees with what St. Jerom says, that the Hebrews have twenty-two letters, five of which are double. They call their sect in Chinese tiao, kin-kiao, to signify that they abstain from blood, and that they cut the nerves and veins of the beasts they kill, that the blood may flow out more easily.

The gentiles first gave them this name, which they received very willingly, to distinguish themselves from idolaters, whom they call heemakiao. They call their law konkiao, the ancient law tienkiao, the law of God, or the law of Israel. They light no fires, nor prepare any food on saturdays, but prepare on fridays all that is necessary for the sabbath. When they read the bible in their synagogue, they cover their faces with a transparent veil,

veil, in memory of Moſes, who came down from the mountain with his face cover'd, and thus publiſhed the decalogue, and the law of God to his people.

Beſides the bible, theſe Chineſe Jews have other Hebrew books written by the ancient rabbins, which they call ſanteo, and which are full of extravagancies, and contain their rituals, and the ceremonies which they uſe at this day.

What is moſt certain is, firſt, that theſe Jews worſhip the creator of heaven and earth, whom they call tien-chanti-chamtien, as appears evidently by their ancient inſcriptions. Secondly, that it is no leſs certain, that the learned Chineſe Jews give to Confucius the honours which the other Chineſe gentiles generally pay him. Thirdly, that it is ſure that they honour the dead in the tſutam, or hall of their anceſtors, with the ſame ceremonies us'd in China, but without pictures, which they do not uſe, becauſe they are forbidden to have images, or any thing ſimilar to them. Fourthly, that it is certain, that in their deſcriptions mention is made of their law, which they call the law of Iſrael; of their origin, antiquity, deſcent, and of their patriarchs, Abraham, Iſaac, and Jacob; of the twelve tribes of Iſrael; of their law-giver Moſes, Aaron, Joſhua, and Eſdras; of the chim-kim, or pentateuch, which they have received from Moſes, and which is compos'd of the books of bereſith, veeleſemoth, vaiiera, vaiedabber, and of haddebarim, which when join'd together, they call taura, and St. Jerome tora.

Remarks on what has been ſaid.

Firſt, the ſynagogue which we have ſpoken of is very different from what we ſee in Europe, becauſe it rather repreſents a temple than a common

Jewiſh ſynagogue. In a word, in the Chineſe ſynagogue, the holy place, whither it is not permitted any but the high prieſt to enter, has a reſemblance with the ſanctum ſanctorum, where was the ark of the covenant, and the rod of Moſes and Aaron. The ſpace that is ſeparated repreſents the part where the prieſts and levites aſſembled in the temple of Jeruſalem, and where the ſacrifices were offer'd. In a word, the hall at the entrance where the people pray, and attend at all the ceremonies of religion, reſembles what was formerly called the porch of Iſrael, atrium Iſraelis.

Secondly, the Hebrew inſcriptions in the ſynagogue of China, ſhew, that the Jews there, in this point, retain the ſame cuſtom which is obſerv'd in the European ſynagogues. But the inſcriptions of the European Jews are but the initial letters of certain words, which compoſe one or more ſentences.

Thirdly, as for the tabernacles or tents of Moſes, and the twelve tribes, theſe are peculiar to the Jews of China, ſince no ſuch things are found in the ſynagogues of Europe. On the eaſt ſide there is a kind of coffer or cheſt, where they ſhut up the five books of the law.

Fourthly, the ſmall books which the Chineſe Jews preſerve, are apparently the fifty-three ſections of the pentateuch, which the European Jews read every ſaturday ſucceſſively in their ſynagogues, and divide them ſo equally, that every year they read over the five books of Moſes.

Fifthly, 'tis not ſurprizing that the Chineſe Jews turn their faces to the weſt, when they pray, whereas the Europeans turn to the eaſt. The reaſon of this difference is, that among the Jews it is a very ancient law to turn their face towards the holy city when they pray. Now, Jeruſalem, ſituated indeed in regard of Europe to the eaſt, in regard of China is

ſituated

ſituated to the weſt. Beſides, it is certain, that the temple of Jeruſalem was diſpoſed in ſuch a manner, that the Iſraelites when praying turned towards the weſt, and the Chineſe Jews follow, perhaps, the ſame cuſtom.

6thly, It is not ſurpriſing that there is no altar in this ſynagogue; for as the Jews offer no more ſacrifices, and are not permitted to ſacrifice but at Jeruſalem, an altar would be uſeleſs to them.

7thly, When we ſaid, that the Hebrews had twenty-ſeven letters, we are to comprehend in this number the five final letters, of which St. Jerome ſpeaks, which are not properly different characters; but a different manner of writing them, by lengthening the ſtrokes at the end of words, inſtead of turning them in, as they do in the beginning and the middle, except the ▭ which is entirely cloſed.

CHAP. XXVII.

A ſecret to make perfumes, and give the exhaling vapour an agreeable figure; to preſerve fire on the water without being extinguiſhed; to extract mercury from wild purſlane; the ſecret of changing lead into pewter, and to give pewter the luſtre of ſilver; means of reſtoring a compaſs without a loadſtone; ſecret of the philoſophers ſtone uſed in China.

THE Chineſe are great lovers of perfumes, of which they have all kinds, ſimple and compound, ſome found in their own country, and others imported from Arabia, and the Indies. Some-

Sometimes they make odoriferous cakes, and at other times ſticks, compoſed of various ſcented powders, which they put in a veſſel full of aſhes; and theſe ſticks having taken fire at one of the ends, exhale ſlowly a ſweet and light vapour; and in proportion as they waſte, the aſhes fall into the veſſel, without falling on the floor. As for other perfumes, ſuch as incenſe, and odoriferous powders, they, like the Europeans, throw them on lighted charcoal.

A famous Chineſe author obſerves, that in order to combine different kinds of perfumes, they muſt mix with them cotton, or burrs of mugwort, that the agreeable vapours of theſe odoriferous bodies may unite, and riſe to a certain height in form of a pillar, without diſſipating themſelves in the ambient air. He would have almonds joined, or acid jujubes, after pounding them in a mortar. In this conſiſts the ſecret, but at the ſame time he adviſes that what is called in China cotton, or burrs of mugwort, is nothing elſe but the fine moſs which is found on old pines. They formerly taught, that a ſovereign remedy for the gout was to kindle mugwort buds, and let them conſume on the afflicted part. If thoſe who have tried this remedy have not been relieved, their diſappointment might have happened, becauſe by the mugwort buds they did not underſtand, as the Chineſe do, that fine moſs with which old pines are covered in certain places.

The ſame author adds another ſecret, to give the vapours of the perfumes an agreeable figure, when it riſes in the air. It is a cuſtom in China to have large veſſels in their gardens, wherein they cultivate the flowers of water-lily. When in June, this root ſends out its large leaves, rub ſome of them with honey; a few days after there will be formed

formed a kind of little worms, which will eat all the green ſubſtance of the leaf, of which nothing but the filaments will remain, like gauze. Theſe will be ſoon dried, and you muſt then gather it, and take off the pellicule; after this, you muſt reduce the gauze into fine powder, and when you would burn ſeveral ſorts of perfumes in a veſſel, and combine them together, add a little of this powder; by which means the vapour will unite in a body, riſing pretty high, and terminating in a cloud, or in figures of various kinds.

The following ſecrets related by the ſame author, are an attempt to account, not only for the ſepulchral and inextinguiſhable lamps uſed in the time of the firſt Roman emperors, but alſo for that ſpecies of fire, known by the name of ignis fatuus. He directs us how to make a ball, which being lighted, floats on the water without being extinguiſhed. Compoſe it, ſays he, of tehangrao, that is to ſay, Chineſe camphor, which is not very dear, and which being purified and cryſtallized, yields, tho' in a ſmaller quantity, a camphor as good as that of Borneo. Take then a dram of camphor, add to it half a dram of the reſin of pine, mix them with good brandy, kindle this maſs, and place it immediately on the water, and it will burn ſlowly, and not extinguiſh, until it be entirely conſumed.

To have a lamp that will laſt, and give light for a month, gather in the month of July an ounce of the herb feon-ping, which grows on the ſurface of the water in lakes, on the banks of ſlow running rivers, and which is called the ever-green. To this add a quantity of quen-tem, or the ſmall claws of ko-fuen, a kind of ſhell-fiſh, and of hoang-ban: reduce all to a fine powder, and to an ounce of oil add a dram of the powder thus prepared.

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Another Chineſe writer teaches us how to make candle which will laſt the whole night, and during that time conſume but an inch or two fingers breadth. The chief ingredients are yellow wax, reſin of the pine tree, flowers of the Egyptian thorn, of each an ounce and ſix drams. To this add a dram of feouche, which is a light porous ſtone. They then melt the reſin and the wax, and afterwards add the flowers of Egyptian thorn, and the ſtone of feouche. They incorporate theſe ſubſtances, in which they carefully dip the wick, in order to make this candle.

If they ſhould uſe the dry varniſh, reſin, fine ſaltpetre, ſulphur, and incenſe, reduced to a powder, and then of this varniſh compoſe little balls of the ſize of a pea, lay one of theſe balls on a plate of iron, light it at night, and tho' expoſed to the higheſt wind, it will not be extinguiſhed till the next morning.

The following ſecret is ſtill more ſurprizing, and the experiment is not difficult. Without regard to thoſe advantages that may be drawn from it, curioſity might incline one to the experiment. There is a method, ſays the Chineſe author, of drawing mercury from wild purſlane. For this purpoſe you need only take the little leaves of purſlane, bruiſe them in a mortar with a peſtle of the wood of Egyptian thorn; then expoſe them to the riſing ſun for about three days, and when they are dry, toaſt them ſo as not to deſtroy their nature and virtues; put this maſs in a well varniſhed earthen veſſel, which you muſt cloſe well, and bury in the earth forty-nine days; after which take out the veſſel, and you find quick-ſilver in perfection.

Nothing is more certain than this ſecret; and in the ſhops of Peking they ſell two ſorts of mercury;

the one taken from mines, which is called chan-choueir; and the other obtained from plants, which is called tſao-chonien.

Theſe different operations of the Chineſe diſcover to us, that in the principles of plants there is iron, which may induce us to think, that there may be mercury in certain plants; and if we reflect on the nature of plants, and ſearch for that which moſt probably contains quick-ſilver, we have reaſon to believe that purſlane does ſo; for, in ſhort, the Chineſe herbaliſt, who in this agrees with the greateſt botaniſts of Europe, gives to purſlane the virtues that are found in mercury. The purſlane, ſays he, is cold in its nature, kills worms, and all ſorts of vermin, is uſefully employed againſt noxious humours, which it diſſipates; and becauſe in its nature it is volatile, it removes obſtructions in the veſſels of the human body.

Be this as it will, it is very probable, that quick-ſilver drawn from plants by the ſolution and ſepation of their principles, would be free from ſeveral impurities which naturally attend that obtained from mines; for by being exalted into the minuteſt parts of the plants, it muſt be freed from the ramous and ſulphureous fibres, with which it abounds more or leſs, and from which it is ſeparated, by paſſing it thorough a ſheep's ſkin.

Should this receipt, by experience, be found true, we may reap from it a double advantage; the firſt of which is, that every where, and in a ſhort time, we may procure a ſufficient quantity of mercury. The ſecond, and moſt conſiderable is, that by the quick-ſilver extracted from purſlane, we may judge better of the different uſes of this plant, and may determine more certainly for what time, and with what precautions it may be uſed, according to the different ſituations of perſons, whether in health or ſickneſs. Beſides,

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its juice prepared in a certain manner might act upon metals diſpoſed to receive it.

The following ſecrets will ſtill farther ſhew the action of the juice of plants, when mixed with metals in fuſion. A Chineſe author ſays, that melted lead, boiled with the juice expreſſed from fumitory with yellow leaves, will be changed into ſila; which is a Chineſe tin, much more beautiful than that of Europe.

This receipt, in conjunction with the following, may perfect thoſe proofs we chuſe to make. We find in another Chineſe book, that there is a poſſibility of giving a tin veſſel the hardneſs of iron, and the brightneſs of ſilver, by holding it over the fire in chang-ka, which is only ſteel-filings, and in pepi, which is arſenic and ſalt.

Another author pretends, that by rubbing Chineſe tin with a fine powder, compoſed of tan-fan, which is copperas, and in two drams of pefan, which is alum, the tin aſſumes the colour of gold; and that if they rub iron with this mixture, it will become red. Perhaps the manner in which the Chineſe prepare iron for gilding it, renders it ſofter, and conſequently more proper to be impregnated by copperas and alum. Their method is as follows.

They mix a ſpoonful of the juice of tſung, which is onion and leek, as much four rice, three heads of pounded garlic, and five drams of dog's greaſe. They put the iron into water with this mixture, which they boil, till they perceive the iron has taken a pale whitiſh colour.

What the ſame author relates of the manner of reſtoring the virtue of the mariner's compaſs, that it may turn to the poles, will appear, no doubt, very extraordinary. They have not recourſe, as we, to the load ſtone, tho' China is abundantly

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provided with them; and its other virtues, as well as attracting iron, are well known to them, ſince they give it the name of hibieche, or the ſtone which attracts iron. The knowledge of its qualities has given riſe to a ſtory told of a lake, where they dare not expoſe veſſels, becauſe there is, ſay they, at the bottom of this lake, ſuch a quantity of load-ſtone, that all the iron-work which holds together the veſſels, being violently drawn to the bottom, the veſſel muſt fall to pieces. Hence alſo proceeds the ridiculous opinion of the Chineſe phyſicians, that by putting the powder of a load-ſtone in a plaiſter, it will draw out the ſplinters of iron remaining in a wound.

But, in a word, if the Chineſe do not employ the load-ſtone to reſtore the virtue of the needle, we muſt ſatisfy the reader, by acquainting him in what manner they do it.

Take, ſay they, in the firſt place, ſome tchucha, the true cinnabar, which is very ſcarce in Europe; and in the ſecond place hiun-hoang, which is orpiment, a certain ſpecies of which is called tſe-loang-tſe, which is the female, and is the deareſt, and the other hoang-hiung, that is to ſay, male. This, perhaps, is the realgal, or the yellow ſandars, inclining to red. To the cinnabar and orpiment add ſteel filings, reduce an equal weight of theſe ingredients to a fine powder, which you muſt mix well together with the blood extracted from white cocks combs; after which you muſt take twenty or thirty fine needles, which you muſt cover on all ſides with this mixture; and after having wrapped them up in paper, you muſt keep them ſeven days and ſeven nights in a little furnace, under which you muſt conſtantly keep a clear fire of charcoal. After this operation, cover the needles, and carry them with you three days applied cloſe to your ſkin. Then make tryal of your

your needles, and you will find that they will turn exactly to the poles, and will be very proper for mariners compaſſes.

We muſt acknowledge, that the ingredients which compoſe this receipt ſeem to have no connection with the juſt direction of the needles to the pole.

In the firſt place we muſt for ſome time put theſe needles over a clear fire; and it is certain that the beſt load-ſtone, and the beſt touched needle, loſe their ſtrength and virtue by the action of fire. In the ſecond place the mixture with which they cover theſe needles, is compoſed of minerals, which are no ways proper to communicate the quality given by the load-ſtone; ſulphur, quick-ſilver, and arſenic predominate. If there is a mixture of iron, it is in powder, and has no longer the arrangement of its parts, and its pores proper to communicate the magnetic virtue. In a word, the ſulphureous and pinguious parts of the blood of cocks, which unite the ingredients, and the ſuliginous perſpiration of the human body, which is recommended in the receipt, obſtruct the ſtrongeſt operation of the load-ſtone.

Beſides, we might be ſurprized, if upon making tryal of this receipt, we ſhould find that a needle thus prepared for the compaſs was leſs ſuſceptible of the declinations and variations, which are found in needles touched by the load-ſtone, and which ſo much perplex mariners. It ſeems the Chineſe know nothing of theſe variations, or at leaſt make no mention of them.

The chimerical ſecret of the philoſopher's ſtone has been in vogue among the Chineſe, long before we had any notion of it in Europe. They ſpeak magnificently in their books of the ſeed of gold, and of the powder of projection; and what our quacks

quacks call the great work, they call the lien-tan, and promiſe to draw from crucibles, not only gold, but alſo a ſpecific univerſal remedy, which procures to thoſe who take it a kind of immortality.

What is ſtill more ſurpriſing, in theſe books, the Chineſe pretend that the depoſitaries of ſo valuable a ſecret, how ſkilful ſoever they be, and whatever expence they are at, run a riſk of failing in their enterprize, if they are not poſſeſſed of ſuch a ſuperlative degree of virtue, as merits the benedictions of heaven on ſuch important and delicate operations.

But if ſome fooliſh alchymiſts, infatuated with this chimera, have not been undeceived till they have converted their ſubſtance into charcoal, there are others, who by their deceitful promiſes have allured the unthinking herd, and enriched themſelves at the expence of their credulity, of which the following is a remarkable inſtance.

One of theſe quacks, who pretended to be one of the firſt maſters of the art, affected on all occaſions a great air of probity, and eſpecially, ſuch a degree of benevolence as may be ſuppoſed in a man who can convert the viler metals into gold. He found means, at length, to get acquainted with a rich nobleman, who after having born the chief employments of the ſtate, had retired into the country. He inſinuated himſelf ſubtlely into his houſe; and by little and little he underſtood ſo well how to manage his humour, by his complaiſance and affability, that he entirely gained his confidence. Then in ſeveral converſations dropping certain expreſſions of his great ſkill in the tranſmutation of metals, the curioſity of the mandarin was greatly excited; upon which the impoſtor acknowledged to him, that he had found the ſecret of the

philoſopher's ſtone, and offered to communicate to him this ſecret, merely out of complaiſance for his civilities, and the ſingular marks he had received of his kindneſs.

This credulous lord fell into the ſnare, and was ſo infatuated with alchymy, that he was impatient to ſee the operation begun. He diſregarded the expence, being perſuaded he ſhould find in his houſe an inexhauſtable mine of gold, and what flattered him the moſt, an infallible method of prolonging his days.

The alchymiſt did not need much importunity, but choſe in the ſpacious palace of this old nobleman, a commodious, agreeable apartment, where nothing was ſpared in treating him, with his pretended wife and domeſtics: for this woman was not his wife, but a courteſan of extraordinary beauty, whom he had taken as copartner in his quackery, and who was to play the chief part of the farce.

As ſoon as he was prepared to begin, the alchymiſt received large ſums to buy the valuable ingredients he was to put into the crucible, which he artfully converted to his own uſe. What ſtill more impoſed upon this old man, was to ſee the care which this impoſtor ſeemingly took, to aſſure himſelf of the protection of heaven. He made frequent proſtrations, burnt a great quantity of perfumes, and continually exhorted the mandarin not to come into the laboratory without great preceding purification, becauſe the leaſt mental ſtain would ruin the labour of many days. The lady, at times, and as it were by chance, ſhewed herſelf; but with no viſible deſign of expoſing her charms.

The work went on; and at the end of a certain time, the alchymiſt ſhewed the credulous

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lord ſuch happy tranſmutations, as promiſed a ſhort paſſage to the perfection of the grand work. This was to the deluded mandarin a ſubject of great joy, which was ſoon diſturbed by the news which this quack received of the death of his mother. He was too good a ſon, and too exact an obſerver of the religious ceremonies of the empire, not to go immediately and pay her the laſt duties. He notwithſtanding comforted the mandarin, by aſſuring him that he would return in a few days, adding, that the work would not be interrupted, becauſe he would leave his wife and ſome domeſticks, who knew enough for what remained to be done. The pretended wife ſeemed ſo thunder-ſtruck at this abrupt ſeparation, that her tears and cries proved the deſire ſhe had of following her huſband, and partaking with him the duties of filial piety.

During the alchymiſt's abſence, the old man often viſited the laboratory, while the lady acted in character, and omitted nothing that might inſpire him with love. She ſucceeded beyond her expectation; for the old man was ſoon captivated with her charms. His viſits to the laboratory became more frequent, and his diſcourſes longer and more ſecret. The ſervants perceived it; and it was the intention of the lady that nothing ſhould eſcape their knowledge, becauſe in the end they were to be witneſſes.

In the mean time the alchymiſt returns, and certain ſigns the virtuous lady gave him, immediately inform him of what had paſſed. After having received from the mandarin the uſual compliments on his quick return, he goes to viſit the work, finds all in diſorder, certain and evident ſigns, cried he, that the laboratory was defiled: and becoming in appearance mad, he overthrew crucibles, and furnaces, and wanted to kill both wife and

ſervants. The lady throws herſelf at his feet, aſks pardon with tears, and acknowledges ſhe had been ſeduced, and the domeſtics, with tears in their eyes, curſe the day they entered into ſuch an abominable houſe.

The alchymiſt, more furious than ever, roars, and ſwears he is going to complain to the magiſtrates, and demand juſtice of the mandarin who has diſhonoured him. In China, adultery is a crime worthy of death, and capable of ruining the moſt opulent houſes. The unhappy old man, ſeized with fear, and endeavouring to avoid the ſhame of puniſhment, as well as the loſs of his eſtate, does all in his power to ſoften the mind of the furious alchymiſt. He offers him conſiderable ſums of gold and ſilver; and to repair the honour of ſo chaſte a lady, he loads her with jewels and trinkets of all kinds. The alchymiſt and the lady not yielding without difficulty, at laſt promiſed not to puſh the affair farther, and retired overjoyed for having thus ſucceeded in finding the philoſopher's ſtone.

CHAP.

CHAP. XXVIII.

The different languages of the Hurons, of the Abnakis, the Algonkins, the Illineſe, the Outaouacks, and ſeveral other nations of New-France; their employments, dreſſes, and dexterity in ſhooting with the bow; their tenderneſs for their children; ceremonies of their funerals; cruel manner of treating captives of war.

THE language of the Hurons is the chief language of the ſavages of Canada; and when a perſon is maſter of it, he can, in leſs than three months, make himſelf underſtood by five Iroqueſe nations. It is the moſt majeſtic, and moſt difficult of all the languages of the ſavages. This difficulty does not only ariſe from their guttural letters, but more from the diverſity of accents; for often two words compoſed of the ſame characters have quite different ſignifications.

Every ſavage nation has its particular tongue; thus the Abnakis, the Hurons, the Iroqueſe, the Algonkins, the Illineſe, the Miamis have each their language, but have no books to inſtruct them, ſince cuſtom alone is their guide.

The Abnakis inhabit a foreſt, which is but three leagues from Quebec. Their cottages are ranged much like houſes in villages, and an incloſure of high poles or ſtakes, that are very cloſe, form a kind of wall, which defends them from the incurſions of their enemies.

Their huts are ſoon reared; for they plant poles that join above, and cover them with thick

barks of trees. The fire is made in the midſt of their hut, and they lay round it matts of bulruſh, on which they ſit in the day-time, and reſt at night.

The mens dreſs conſiſts in a frock made of a ſkin, or a piece of red or blue ſtuff, and that of the women is a covering, which falls from the neck to the mid-leg, and ſerves them as a robe; their ſtockings go from the knee to the ancle; and a ſort of pumps of elk-ſkin lined with hair or wool, ſerve them inſtead of ſhoes. This kind of ſhoe is abſolutely neceſſary for them, to join their feet to the rackets, by means of which they paſs eaſily over the ſnow, and theſe rackets made lozenge-wiſe, are more than two feet long, and a foot and a half broad.

The invention of theſe rackets is of great uſe to them, not only to walk over deep ſnow, with which the earth is covered a great part of the year, but likewiſe in hunting wild beaſts, eſpecially the orignal, an animal which is larger than the largeſt oxen in Europe, and conſequently walks with difficulty on the ſnow; ſo that it is no hard matter for the ſavages to catch it, and often with a common knife fixed to the end of a ſtick they kill it, live on its fleſh, and after tanning its ſkin, in which they are ſkilful, they trade with the Engliſh and French, who give them in exchange cloaths, coverlets, cloaks, guns, axes, and knives.

In order to form ſome idea of theſe ſavages, we muſt repreſent to ourſelves tall, active men, of an olive hue, without beards, with black hair, and with teeth whiter than ivory. They have no ornaments but a ſort of beads, compoſed of a kind of ſhells or ſtones, which they form into ſmall globules, ſome white, and others black, which they ſtring in ſuch a manner, as to repreſent figures no leſs regular than beautiful. With theſe

the

the ſavages tie their hair above their ears, and behind. They alſo make ear-rings, necklaces, garters, and large girdles of them.

The employment of the men is hunting or war, and that of the women to remain in the villages, and make panniers of bark, ſacks, boxes, ſpoons, and plates. They ſew theſe barks with roots, and make ſeveral well-wrought moveables of them. Their canoes are alſo one entire piece of bark, but the largeſt of them cannot contain above ſix or ſeven perſons.

It is in theſe canoes, which are hardly thicker than a crown-piece, that they paſs arms of the ſea, ſail on the moſt dangerous rivers, and on lakes of four or five hundred leagues circumference.

Nothing can equal the tenderneſs which the ſavage women have for their children, ſince as ſoon as they are born they lay them on a board, covered with a kind of ſtuff, and a little bear ſkin, in which they wrap them; and this is their cradle. The mothers carry them on their backs, in a manner commodious for their children, and eaſy to themſelves.

The boys ſcarce begin to walk, but they are accuſtomed to the bow, and become ſo dextrous that at the age of ten or twelve years, they ſeldom fail of killiing the bird they ſhoot at.

Nothing can be more diſagreeable than their manner of eating; for after filling their kettle with meat, they boil it at moſt three quarters of an hour; when taking it off the fire, they ſerve it up in veſſels of bark, and divide it among thoſe that are in the cottage, who eat it as we do bread.

They are exceſſively fond of tobacco, ſince men, women, and girls, ſmoak almoſt continually. In the beginning of June they ſow Indian corn in the following manner. They make with the finger,

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or a ſmall ſtick, ſeveral holes in the ground, and throw into each eight or nine ſeeds, which they cover with the earth they take out, and their harveſt is toward the end of Auguſt.

The Miſilimakinaks are diſtant from Quebec about four hundred leagues, and attribute to their nation an originalas fooliſh as ridiculous; for they pretend to deſcend from three families, and that each family is compoſed of five hundred perſons.

Some are ſaid to be of the family of Michabon, that is to ſay, the great hare; and they pretend that this great hare was a man of prodigious ſize; that he laid nets in the ſea at eighteen fathoms deep; and that the ſea ſcarce reached his armpits; that one day during the deluge he ſent the beaver to diſcover the earth; but that this animal not returning, he ſent out the otter, who brought back a little earth covered with froth; that he went to the lake where this earth was found, which formed a little iſland; that he walked in the water round about, and that this iſland became extremely great; wherefore they attribute to him the creation of the earth, and ſay, that after he had finiſh'd this work, he aſcended to heaven; but that before he left the earth, he ordered that when his deſcendants came to die, they ſhould burn their bodies, and ſcatter their aſhes in the air, that they might more eaſily be conveyed into heaven; that if they neglected this, ſnow would certainly cover the face of the earth; that their lakes and rivers would remain frozen, aad not being able to catch any fiſh, which is their cuſtomary food, they ſhould all die in the ſpring.

The ſecond family of the Outaouaks pretend they ſprung from Mancipik, that is from the carpe, and ſay, that this carpe having ſpawn'd on the

the bank of a river, and the ſun darting his rays upon it, there aroſe a woman, from whom they are deſcended, for which reaſon they call themſelves of the family of the carpe.

The third family attributes its origin to the paw of a machova, or bear, and call themſelves of the bears family, without explaining how they proceed from it. When they kill any of theſe animals, they make him a feaſt of his own fleſh, ſpeak to him familiarly, and make harangues to him. Be not angry with us, ſay they, becauſe we have killed thee; thou haſt ſenſe, thou know'ſt our children are pinch'd with hunger; they love thee, they deſign thee for their food; and is it not glorious for thee to be thus eaten by the children of a captain.

There is none but the family of the great hare who burn the dead; for the two other families inter them. When ſome captain is deceas'd, they prepare a large coffin, wherein laying his body clothed in his beſt cloaths, they incloſe with him his coverlet, his gun, his proviſion of lead and powder, his bow, arrows, kettle, diſh, victuals, pike, tinder-box, vermilion-box, looking-glaſs, his porcelain necklace, and all the uſual preſents made at a funeral, becauſe they imagine, that with this equipage he will more ſucceſsfully make his journey into the other world, and will be better received by the great captains of the nation, who will carry him with them into a region of pleaſure.

While all is packing up in the coffin, the relations of the dead aſſiſt at the ceremony, by lamenting in their manner; that is to ſay, by ſinging with a plaintive voice, and beating with ſticks in concert, to which they fix ſeveral little bells.

The ſuperſtition of theſe nations appears ſtill more

more extravagant from the worſhip which they pay to him, whom they call their manitou. As they have but little acquaintance, except with the beaſts they find in the foreſts, they imagine in them, or rather in their ſkins, or plumage, a kind of genius, which governs all things, and is the maſter of life and death. There are, as they ſay, manitous common to all nations; and there are particular ones for each perſon. Ouſſakita is, they ſay, the great manitou of all the beaſts that tread on the earth, or fly in the air, in conſequence of which, when they go a hunting, they offer tobacco to him, powder and lead, and prepared ſkins, which they tye to a pole, and raiſe it in the air. Ouſſakita, ſay they, we offer thee proviſion for ſmoaking, arms for killing beaſts, vouchſafe to accept theſe preſents, and ſuffer none to eſcape our arrows; grant that we may kill a great number of the fatteſt, that our children may want neither cloaths nor food.

They call Michibichi the manitou of water and fiſh; and they make a ſacrifice to him almoſt in the ſame manner when they go a fiſhing, or undertake a voyage. This ſacrifice conſiſts in throwing tobacco into the water, victuals, and kettles, begging of him that the water of the river may flow more gently, and that the rocks may not ſhatter their canoes; but that they may make copious draughts of the largeſt and beſt fiſh.

Beſides theſe common manitous, each has his own, which is either a bear, a beaver, a buſtard, or ſome ſuch beaſt, or fowl, whoſe ſkin they carry in war, in hunting, and in their journies, perſuading themſelves it will preſerve them from all dangers, and make them ſucceed in all enterpriſes.

When a ſavage wants a manitou, the firſt animal which occurs to his imagination in ſleep, is com-

commonly the object of his choice, ſo that he kills a beaſt of this kind, puts its ſkin, or plumage, if it is a bird, in the moſt honourable place of his cottage, and prepares a feaſt in honour of it, during which he makes his harangue to it in the moſt reſpectful terms, and then it is acknowledged for his manitou.

The Illineſe are near eight hundred leagues diſtant from Quebec, and theſe ſavages who are only cover'd about the middle, have the reſt of their body naked. Several groups of all ſorts of figures, which they engrave on their bodies in an indelible manner, ſerve them inſtead of garments, and they adorn their heads with feathers of ſeveral colours of which they make garlands and crowns, which they adjuſt very well, and take ſpecial care to paint their countenance with different colours, and particularly that of vermilion. They wear necklaces and ear-rings made of little ſtones, which they cut in the form of jewels, of which ſome are blue, ſome red, and others white as alabaſter, to which they add an ornament of porcelain, and then the collar is finiſh'd.

When the Illineſe are not employed in war or hunting, they paſs their time in gaming, feaſting and dancing; of the laſt of which they have two kinds, ſince the one is the ſign of rejoicing, to which they invite married women, and young ladies of the firſt diſtinction, whereas the other kind is intended to ſhew their ſorrow for the death of the moſt conſiderable of their nation. It is by theſe dances that they pretend to honour the dead, and dry up the tears of his relations; and all the natives have a right to bewail the death of their neighbours and friends in this manner. The dances laſt longer or ſhorter, in proportion to the price and value of the preſents: after which they diſtribute them among the dancers. Their cuſtom is not to inter the dead, but to fold them up in ſkins,

and

and tye them by the head and heels to the boughs of trees.

At the times when there are neither games, feſtivals, nor dances, the men continue quiet on their mats, and paſs their time either in ſleeping, making bows, arrows, and other things of a ſimilar nature, while in the mean time the women work from morning to night like ſlaves; ſince it is their buſineſs to till the ground, ſow the Indian corn in ſummer, and as ſoon as winter comes to make mats, tan ſkins, and employ themſelves in many other ſuch like works.

Of all the people of Canada, there is none that lives in ſuch plenty of all things as the Illineſe, ſince their rivers are cover'd with ſwans, buſtards, ducks, teal, &c. One can ſcarce travel a league without meeting a prodigious number of Indian turky-cocks, which appear in flocks, ſometimes to the number of two hundred, and ſome of which weigh thirty-ſix pounds.

In this country are great numbers of bears and ſtags, together with an incredible quantity of oxen and roe-bucks. We may ſee in meadows, in which the ſight is loſt, four or five thouſand black cattle feeding together, each of which has a protuberance on his back, and a very large head. Their hair, except that on their head, is curled, and ſoft like wool, and their fleſh is naturally ſaltiſh, and ſo light, that it may be eaten raw, without cauſing any indigeſtion. When they have killed an ox, that appears to them too lean, they are content with taking out the tongue, and look out for a fatter.

Their arrows are the chief weapons they make uſe of in hunting and war, which are pointed with a ſharp ſtone cut into the form of a ſerpent's tongue, and which, for want of knives, they uſe to cut up the animal they kill. They are ſo dex-

terous

terous in ſhooting with the bow, that they ſcarce ever miſs the mark, and do this ſo quickly, that they can ſooner ſhoot a hundred arrows than an European load his gun.

They take little pains in making nets, becauſe the variety of wild beaſts, which they find for their ſubſiſtence, makes them indifferent about fiſh. Yet when they take a fancy for fiſh, they ſet out in a canoe with their bows and arrows, ſtand upright, the better to ſee the fiſh; and as ſoon as they ſee them, pierce them with an arrow.

The only means of procuring eſteem among the Illineſe, as among all other ſavages, is to gain the reputation of a ſkilful huntſman, and a good warrior. They are ſo fond of this character, that they undertake journies of four hundred leagues in the midſt of foreſts, to make a ſlave, or to bring back the hair of a man whom they have killed, and deſpiſe the great fatigues and hardſhips they ſometimes ſuffer, eſpecially when they approach an enemy's country, leſt the beaſts being only wounded, ſhould eſcape with the arrows in their bodies, and put the enemies on their guard; for their manner of making war, as well as that of all other ſavages, is to ſurprize an enemy; wherefore they ſend ſpies to obſerve their number, march, or to examine whether they are on their guard, and according to their informations, they either lie in ambuſcade, or ruſh into their cottages with their poles in their hands, and never fail to kill ſome of the enemy before they are prepar'd for defence.

Their pole is made of a ſtag's horn, or wood, in form of a cutlaſs, ending in a large knob. They hold this pole in one hand, and a knife in the other; and as ſoon as they have diſcharg'd the blow on the head of an enemy, they ſcalp him, and

and take off the ſkin and hair with a ſurpriſing quickneſs.

When a ſavage returns into his country with a number of theſe hairy ſkins, he is received with extraordinary honours; but the higheſt point of glory is to take many priſoners, and bring them home alive; upon which occaſion, as ſoon as he arrives, all the village aſſemble, and ſtand in ranks, where the priſoners are to paſs. This reception is very cruel, ſince ſome pull off their nails, others cut off their fingers or ears, and ſome beat them unmercifully with ſticks.

After this firſt reception, the elders aſſemble to deliberate, whether they ſhall grant their priſoners life, or put them to death. When ſome dead perſon is to be rais'd to life, that is to ſay, if any one of their warriors has been kill'd, and they think they ſhould replace him in his cottage, they put into this cottage one of the priſoners who holds the place of the dead perſon; and this is what they call raiſing the dead.

When a priſoner is condemn'd to death, they immediately fix a great ſtake in the ground, to which they tye his hands, and then make him ſing his death ſong; and all the ſavages ſitting round this gibbet, light a few paces off a great fire, wherein they heat axes, and other iron inſtruments, red hot; then they come ſucceſſively, and apply them thus heated to different parts of his body, but others burn their captives with live coals; ſome mangle and cut their bodies with knives; others cut off a part of their burnt fleſh, and eat it in their ſight; ſome make wounds and fill them with gun-powder, and then ſet fire to it: in a word, each one torments the poor wretch according to his fancy, and that for five or ſix hours, and ſometimes for two or three days. The more

piercing

piercing and violent the cries of the captives are, the more agreeable and diverting the ſpectacle is to theſe inhuman ſavages. The Iroqueſe invented this kind of death; and it is only by way of retaliation, that the Illineſe in their turn treat their priſoners with equal cruelty.

CHAP. XXIX.

Of nitre, ſal-armoniac; of the ſtones and marbles of Egypt; of thechicken-oven; of the eagle-ſtones; and of the petrification of wood.

THE natron, or Egyptian nitre, is produc'd in two lakes, one of which, call'd the great lake, is in length four or five leagues, and about one in breadth, and lies in the deſart of Scitia or Nitria. It is a good day's journey to the weſt of the Nile, and two from Memphis, towards Cairo, and as far from Naucrate, towards Alexandria and the ſea.

The other lake, call'd in the Arabian tongue Nebidee, is three leagues and a half in length, and about one and a half broad. It extends to the foot of the mountain on the weſt, and about twelve or fifteen miles from the ancient Hermopolis, now called Damanchour, the capital of the province of Beheira, near Marcole, and a day's journey from Alexandria.

Theſe lakes are dry during the ſpring, ſummer, and autumn, but in winter yield a nitrous liquor which ſometimes riſes four or five feet high, and is

is of a dark red, or blood colour, and the bottom of theſe lakes is always firm and ſmooth as marble, even when they are filled with water.

This nitre is ſometimes of a dirty black, and ſometimes of a bright carnation red, tho' the firſt is moſt eſteemed. The workmen employed in getting the nitre ſtand naked in the lake with iron bars about ſix feet long, and as thick as one's finger, and ſtriking with theſe bars pointed at the end, as they do in quarries, they break off pieces as large as cakes of ſoap.

In theſe lakes the nitre is covered with a foot or two of water, and is four or five feet deep in the earth, but what is taken out one year, is renewed the next, or ſome years after, by a new nitrous ſalt, ſupplied by the juice of the earth. To preſerve this fecundity, the Arabians take care to fill up the empty ſpaces with ſubſtances of all kinds, as ſand, mud, bones, carcaſſes of animals, horſes, aſſes, and ſuch like. All which ſubſtances are converted into true nitre, ſo that workmen returning a year or two after, find a new harveſt in thoſe places they had before exhauſted.

Pliny is miſtaken when he ſays, that the Nile acts in the nitre beds, as the ſea in thoſe of ſalt, ſince theſe two lakes are, by their high ſituation, inacceſſible to the inundations of the Nile. It is however certain that rain, dew, and miſts, are the true parents of nitre; that they haſten its formation in the boſom of the earth; that they multiply it, and make it red; for there is white, yellow, and black nitre.

When they have gathered the nitre, they immediately load camels, and other beaſts of burden with it, without deterſion, depuration, lixiviation, or other preparation, ſince the nitre comes from the mines pure and perfect.

That

That of the great lake is carried to Terrane on the Nile, where it is piled up and expoſed to the air, till they ſell it, and that of Nebide is tranſported to Damanchour, where it is laid up in magazines.

Nitre ſerves to whiten copper, ſalt, and linen, and is employed by dyers, glaſs-makers, and gold-ſmiths. Bakers alſo puff up their bread with it, by mixing it with the paſte; and cooks make their meat tender with it.

The peaſants of Terrane are obliged to carry every year from the great lake forty thouſand quintals of nitre, which is inſtead of a rent for the lands they have ſown.

The peaſants about Nebide are charg'd likewiſe to bring from their lake thirty-two thouſand quintals a year, at their own expence, to Damanchour.

Beſides nitre, they gather in certain places of the lakes ordinary white ſalt of a fine colour, and they find likewiſe ſal-gemmæ, which is imported in ſmall pieces of a pyramidal figure, that is to ſay, ſquare at the baſe, and ending in a point; but this laſt ſalt is only found in the ſpring. The matter of the ſal-ammoniac is nothing but ſoot, which they ſcrape from their chimnies, where they burn animals dung mix'd with ſtraw. Theſe clods impregnated with alcaline urineus ſalts, give the ſoot a certain quality, which it would never acquire from the ſmoak of wood or coal, a quality, however, abſolutely neceſſary for the production of ſal-ammoniac.

The veſſels which contain the matter nearly reſemble bombs, ſince they are large round glaſs bottles, a foot and half in diameter, with a neck two fingers long. They cover the inſide of theſe bottles with pinguious earth, and fill them with ſoot to about four fingers breadth from the neck,

which remains empty and open. Into theſe veſſels are put about forty pounds of ſoot, which at the end of the operation yields about ſix pounds of ſal-ammoniac; and the ſoot of an excellent quality furniſhes above ſix pounds, and others in proportion.

Their furnaces, or ovens, are diſpoſed like ours, except that their arches are opened by longitudinal apertures, on each of which there are four bottles, ſo arranged, that the bottom of each bottle being expoſed to the heat of the flame, the ſides are lodg'd in the thickneſs of the vault, and the neck of the bottle is only expos'd to the air; as for the reſt of the aperture it is well cover'd, and luted. Each of theſe furnaces contains ſixteen bottles, and each grand laboratory is compoſed of eight furnaces, diſpos'd into two chambers, and conſequently employs at once ſix ſcore of bottles.

In each furnace they keep up for three nights and days a continual fire made of animals dung mixed with ſtraw. The furnace is deep, and the fire diſtant from the bottles, to avoid breaking them. The firſt day the groſs phlegm of the ſoot exhales, by a thick ſmoak, riſing from the neck of the bottle, which remains open. The ſecond day the volatile ſalts being exaled with thoſe of the alcaline kind, adhere to the upper part of the bottle, whoſe neck they cloſe up, by uniting and coagulating. The third day the coagulation is continued, purified, and perfected; after which the operator makes a little hole on the ſide of each bottle, a finger's breadth beneath the neck, to ſee if the matter be ſufficiently prepar'd, and if there be nothing to evaporate. After having well obſerv'd this, he ſtops up the hole with clay, and opens it from time to time to ſee the progreſs of the operation.

When

When he ſees it come to the deſired perfection, he removes the fire, breaks the bottle, and throws away the aſhes at the bottom, but keeps the white, round, tranſparent maſs, of the thickneſs of three or four fingers, fix'd and ſuſpended by the neck, and which is called ſal-ammoniac. Under this ſal-ammoniac is fixed a black cruſt two or three fingers thick, called aradi, under which the aſhes remain at the bottom of the bottle; they caſt away the aſhes, but keep the black cruſt in the bottles. Of this cruſt is formed a ſal-ammoniac, of the whiteſt colour and beſt quality, which they call mecarrar; and this ſalt is dearer than the other.

In the two towns of Delta, adjacent to each other, called Damanger, a league from the city of Maſſoure, there are twenty-five great laboratories, beſides ſome ſmall ones, in which there are made every year, at leaſt, fifteen hundred, or two thouſand quintals of ſal-ammoniac. In the reſt of Egypt there are but three, two in Delta, and the third in Cairo, which produce yearly twenty or thirty quintals of this ſalt.

The uſe of ſal-ammoniac is well knowh to the tinners of copper veſſels; to goldſmiths, plumbers, and particularly to chymiſts and phyſicians.

Egypt abounds in marbles of different kinds; the granate, or Theban marble, is mark'd with ſeveral colours; red prevails in ſome, and black in others. All theſe kinds of granate marble are taken from the quarries of the higher Egypt, near the Nile, between the firſt cataracts, and the city of Aſſouan, formerly Syene.

The white and black marble are found on the north of Aſſouan, upon the eaſtern borders of the Nile.

There are quarries of yellow, red, and black marble, near the famous monaſtery of St. Anthony,

thony, in the desart of the Thebaide, at the western foot of mount Golzim, in the plain of Araba, seven or eight leagues from the red sea.

There were formerly quarries of these different marbles, and of porphyry, in certain places of Egypt, and out of it; but these are not now to be found. The avarice and indolence of the Turks have long ago made the ways to these quarries quite forgotten, since they use the ruins of ancient buildings to supply themselves with marble. Mount Sinai, and all the mountains which surround it, are nothing but granate, as well as the vallies and mountains, two days journey to the north of Sinai. The mount of St. Catharine is of the finest sort, and mixed with black veins, resembling shrubs.

Towards Assouan, betwixt the Nile and the red sea, they cut out of the quarries a white round stone called beram, of which they commonly make in all the Said, and at Cairo, kettles, and other kitchen utensils. This stone bears the fire, and when it happens to be broken, they very neatly join the broken pieces by iron rivets, and cement the joinings with powder of the same stone.

They find in the province of Fioum, formerly Asinoite, a kind of little oblong stone, of a browniſh colour, intermix'd with little yellow specks, that are almost imperceptible, which is formed of a sand of the same colour, in a plain about two hundred paces long, and as many broad. The natives call this the nut-stone, on account of its figure.

Two leagues to the east of Cairo, there is a plain of sand called sabil-el-allam, covered with pebbles, some of which contain a kind of rough diamonds. They break the stone, from which they

they take this little brilliant, of which, when cut and poliſh'd, they make rings and bracelets.

The chicken oven is a ſtructure buried in the earth, and like a dormitory; the alley which is in the middle, has four or five chambers on each ſide.

The entrance of the alley is very low, and narrow, and is ſtopped with tow, to preſerve a continual heat through the whole furnace.

The breadth of theſe chambers is about four or five feet, and their length three times as much. Theſe chambers have two ſtories; that below is even with the ground; and that above has a floor, wherein there is an opening in the middle, and the roof is arched, and alſo open.

Inſtead of a door, each ſtory has a ſmall window a foot and a half in circumference.

The lower ſtory is filled with four or five thouſand eggs, and perhaps more; for the profits of the undertaker, are in proportion to the number; beſides, ſuch a multitude of eggs contributes to preſerve the heat, which communicates itſelf to them all thus heaped upon each other.

The higher ſtory is for the fire, which is lighted for eight days, but is not kept continnally burning; for in this caſe the heat would be exceſſive and hurtful. They light it only for an hour in the morning, and as long in the evening, which they call the dinner and ſupper of the chickens. This fire is made of cows dung, or that of other animals dried and mix'd with ſtraw, but they exclude wood and coal, which would make too ſtrong a fire.

The ſmoak is diſcharged thro' the aperture of the higher ſtory; but it is to be obſerved, that while it remains open, they ſtop the little window of the lower ſtory with tow, and the round hole

of the arch, that the heat may communicate itſelf by the opening of the floor to the lower ſtory where the eggs are depoſited.

After the eighth day the ſcene is changed, ſince they extinguiſh the fire; and the ſtory where it was being empty, is filled with a part of the eggs which are taken from below, to give them more room, and diſtribute them equally in the two ſtories; the doors or little windows of theſe two ſtories which had been open are cloſed, and they half open the hole of the arch, to let in air.

This condition of the eggs without fire is aſſiſted only by a heat which is moderate, and concentrated for thirteen days, which added to the former eight, make twenty one. It is about the eighteenth day, that a vivifying ſpirit begins to actuate the white of the egg, and the chick is already formed, ſo evidently, that through the ſhell we ſee it move, and nouriſh itſelf with the yolk, which it ſucks in by the navel.

Two days after, viz. on the twentieth, the chicken applies its beak to the ſhell, and breaks it, upon which the manager with his nail, enlarges a little the breach, to aſſiſt the weak efforts of the chicken.

On the twenty-firſt at noon, or the twenty-ſecond in the morning, all the ſhells are broken, and an army of little birds are ſeen to diſengage themſelves from their priſons, which is a charming ſpectacle. Eight chambers, but yeſterday, appeared covered with inanimate ſhells, and to-day are filled with almoſt ſo many living birds; I ſay almoſt, for the number of eggs always exceeds that of chickens.

The manager will but anſwer for two-thirds of the eggs, ſo that the undertaker putting, for example, ſix thouſand eggs into the hands of the manager, requires from him no more than four

thouſand

thouſand chickens at the end of the operation. The reſt are left to chance, and almoſt one third of them generally periſhes.

But as it often happens, that the eggs ſucceed beyond expectation, all the profit does not go to the manager, ſince the undertaker has a large ſhare of it. The manager is obliged to reſtore him for ſix medins every hundred chickens hatched beyond the two thirds; and we are to remark, that the undertaker will ſell the hundred chickens at leaſt for thirty medins.

What ſeems ſurpriſing is, that in the great number of men, who inhabit Egypt, where there are three or four hundred ovens, there are none but the inhabitants of the village Berme, ſituated in Delta, who have the hereditary induſtry to make theſe ovens, ſince the other Egyptians are entirely ignorant of them.

They only work in theſe ovens for ſix months, during autumn and winter, becauſe the ſpring and ſummer are too hot, and contrary to this labour.

When therefore the autumn approaches, we may ſee three or four hundred Bermeans quit their habitations, and ſet out, in order to take on them the direction of the furnaces that are built in ſeveral villages of the kingdom.

They are neceſſarily employed in this labour, becauſe they are the only perſons who have the knowledge of the art; whether they have the cunning to keep the ſecret, or whether no other Egyptian cares to give himſelf the trouble to learn and exerciſe it, can hardly be determined.

The directors of theſe chicken ovens are maintained by the undertaker, have forty or fifty crowns ſalary, and are obliged to pick the eggs brought to them, that none may be uſed but

ſuch as they think proper for the purpoſe. They further engage to watch night and day, to ſhift the eggs continually, and keep up the degree of heat proper for this operation, ſince ever ſo ſmall a degree either of heat or cold, more than is ſufficient, would ſpoil the whole.

Notwithſtanding all the care and diligence of the manager, it cannot happen, but that in ſo great a quantity of eggs heaped on each other in the furnace, there muſt be ſeveral which do not anſwer; but a ſkilful operator knows how to indemnify himſelf from this diſaſter; for in this caſe he preſerves the yolks of ſuch eggs as are otherwiſe uſeleſs, and with them feeds ſeveral hundred chickens, which he brings up, and fattens in a ſeparate place made for that purpoſe. When they are fat and ſtrong, he ſells them, and faithfully divides the profit with the undertaker.

Each furnace has twenty or twenty-five villages which uſe it in particular. The inhabitants of theſe villages are obliged, by order of the baſhaw, and the ſuperior tribunal of juſtice, to carry all their eggs to the furnace that is aſſigned to them; and they are forbidden to carry them elſewhere, or to ſell them to any one, unleſs to the lord of the place, or the inhabitants of the villages which are of the ſame diſtrict, by which method it is eaſy to comprehend, that the furnaces cannot want employment.

The lords have yearly by theſe chicken ovens, of which they are maſters, fifteen or twenty thouſand chickens, which coſt them nothing. They diſtribute them to the inhabitants of their lordſhips, on condition that the half of the profit, that is to ſay, the vaſſal who has received four hundred chickens from his lord, muſt reſtore him two hundred, or an equivalent in money.

Theſe

Theſe directors of the ovens being aſked if their art would ſucceed in France, affirmed, that they did not doubt it; and that it would be eaſy for them to direct theſe ovens in ſuch a manner, that the difference of the climate ſhould prove no obſtacle to the operation.

Near Terrane, a village ſituated upon the banks of the Nile, we find the great ſea of the deſart, which the Arabians call * Bharbelama, becauſe it is a ſea without water.

As we advance into this plain, or lake without water, the bottom is deeply hollowed, and in certain places ſeems, as it were, loſt in an abyſs, after which the ground or bottom riſes, and extends itſelf in large canals, which terminate in other cavities and abyſſes; ſo that nothing more reſembles a dried lake, than thoſe hollow places; for on the ridge of the plain, and at the brink of theſe vaſt ditches, we ſee here and there maſts laid on the ground, with pieces of wood which ſeem to come from the wrecks of ſhips; but if we touch them, what appeared wood, whether intire maſts or broken planks, is found to be ſtone; a change which can only be attributed to the nitre, with which the ſoil abounds. There are above one hundred and fifty of theſe petrified maſts; and we find many as we advance farther.

The change of wood into ſtone is not the greateſt prodigy found in the plain of Bharbelama, ſince the ſand there is alſo converted into the eagle-ſtone, which is found in a great number of places, two or three fingers breadth, below the ground; and in little quarries or mines ſome paces long and broad, about half a mile diſtant from each other. The earth ſends out from its boſom a kind of metalic ſubſtance, which ferments with the burning ſand, and in fermenting aſſumes

* Others call it Baharbalaama.

aſſumes a fortuitous round figure, and takes up the neighbouring ſand, which is larger; after this, it is gradually baked, hardened, and becomes black by the heat of the ſun. In this manner is formed that hollow, ſounding, ſhaggy ſtone, which is called the eagle-ſtone.

It is to be obſerved, that all the aerites, or eagle-ſtones are not naturally black, ſince ſome are of a violet, yellow, or cineritious colour. The aerite in the mine has three qualities, which it loſes when out of it. It is tender and brittle as an egg, mute, and without ſound; and is of a ſprightly and deep colour, but after having been expoſed to the air, it is hardened by degrees like coral. The clay in its cavity being dried gradually takes up leſs ſpace, and conſequently founds, when it is ſhaken; its yellowiſh or violet colour grows brown, and darker than it was before.

The goodneſs of the mine is known by the following obſervation. If the earth you rake is hot, and variegated with different colours, then the eagle-ſtones are excellent, and found in great plenty. On the contrary, if the clay be dry, cold, and of an uniform colour, you will meet with few or none conſiderable.

The ancient naturaliſts have related abundance of fables about the eagle-ſtone, ſome having imagined a kind of propagation in it. The eagle-ſtone is called by the Arabians maſkee; that is to ſay, containing; probably becauſe it contains in its cavity a kind of gravel, which being dried, and looſe on all ſides, renders the ſtone ſounding when it is ſhaken; but it is not eſſential to this ſtone to have cavities.

In the ſame plain of Bharbelama, we find a great heap of ſand, which is called the hill of eagle-ſtones, becauſe it is all covered with them, not in little pebbles

pebbles, but with rocks of the ſame ſubſtance as the ſmall eagle-ſtones, this only excepted, that the pieces are not hollow.

CHAP. XXX.

Of the different kinds of fiſhing in Egypt; of the birds of the Nile; of the ſea-horſes and crocodiles.

NOne but the merchants of Damiette and Roſette tranſport to the coaſts of Syria the ſalt-fiſh of Egypt; and only the inhabitants of the banks of the lake of Manzale, Brulos, and Beheire, furniſh the ſalt-fiſh, exported from the kingdom, ſince the inhabitants of the banks of other lakes ſell only freſh fiſh, which they diſpoſe of on the ſpot.

The lake of Manzale begins on the eaſt, half a league from Damiette, formerly called Thamiathis, and ends at the caſtle Thine, formerly Peluſium. It is twenty-two leagues from eaſt to weſt, and five or ſix broad from north to ſouth, and has a bottom which is muddy, and full of herbs. It is but four feet deep, or thereabouts, in any place, and is only ſeparated from the ſea, by a bed of ſand, which at moſt is but a league broad, which however does not hinder the lake from having a communication with the ſea, which it has to the north by three mouths, viz. that of Thine, which is the moſt eaſtern, called formerly the Peluſian mouth of the Nile; by Eumme Furrege, formerly called the Tanitic; and by Dibe, or Peſquiene, formerly Mendeneſia.

Be-

Beſides this communication with the ſea, the Nile falls into the lake by ſeveral channels to the ſouth, for which reaſon during two or three months of the year, that is to ſay, during the ſummer, which is the time of the overflowing of the Nile, the waters of the lake Manzale are ſweet, whereas in the other nine months of the year they are ſalt, and reſemble the water of the ſea. This is not ſurpriſing; for then the channels of the Nile are either dry, or ſo empty of water, that very little runs thro' them into the lake.

The lake of Brulos, which is fifteen or eighteen leagues long, and four or five broad, is ſituated between Damiette and Roſette.

The lake of Beheire, which is at moſt but ſeven leagues in circumference, is ſituated between Roſette and Alexandria.

Every one has not the liberty of fiſhing, ſince this right is confined to two thouſand, each of whom pays about forty ſhillings to the aga of the lake, who accounts for it to the baſhaw of Cairo. This is not all, ſince every third part of the fiſh, freſh or ſalt, belongs to the royal treaſury, and they pay for the reſt certain duties, ſo that the whole amounts to eighty purſes a year, and the lake of Manzale alone brings in forty thouſand crowns a year to the Grand Signior.

It is ſurpriſing to ſee the quantity of boats, that are continually employed in fiſhing on the Manzale, ſince there are no leſs than a thouſand of them, which are only four fathoms long, and one broad, flat bottom'd, and pointed at the ſtem and ſtern.

Their manner of fiſhing is ſingular, and diverting, ſince the fiſhermen make an incloſure compos'd of ruſhes, which they plant in the lake, to catch and intangle the fiſh, and then ſurround it with

with their nets, and each fiſher is proprietor of one, or more of theſe incloſures.

Sometimes they are contented to fiſh with a round net; in which caſe, before they uſe it they throw into the water, ten or twelve paces from them, a rope of two fathoms length, that has at one end a large ſtone proper to ſink it to the bottom, and at the other a piece of wood, which floats on the ſurface; they then cover it with the net, while the fiſh, which flock to the ſtone as to a prey, are taken in it.

'Tis to be obſerv'd, that the lake Manzale is full of little iſlands covered with reeds, ruſhes, and cops. To theſe iſlands the fiſhermen carry their fiſh, when they want to cut up, ſalt, and barrel them, but for ſuch as they deſign to ſell freſh, they carry them to Damiette, or to the towns or cities about the lake. Theſe iſlands are charming, on account of the multitude of birds of different colours, and ſurpriſing beauty, and which only fly from one iſland to another. The pelican, the rice-hen, the water-hen, the coot, the Nile-gooſe, the common duck, the green headed duck, the teal, the black ibis, the black and white ibis, the grey and white cormorant, the white cormorant with a red bill, the chevalier, the dipper, and the crane, with ſeveral other birds, are there found in great numbers.

The fiſhermen only wear a pair of drawers, and have the reſt of the body entirely naked.

The fiſh taken in theſe three lakes may be reduced to ſeven or eight ſorts, to wit, the queiage, the deaf fiſh, the jamal, the geran, the noqt, the karous, the mullet, and the dolphin.

The queiage, which is the beſt fiſh in the lake, is of the ſize of a ſhad, and green under the mouth. The deaf fiſh and the jamal are much larger

larger than the queiage, and are excellent fiſh. The geran, the karous, and the noqt, which has this particular, that it is ſpeckled, may paſs for good fiſh, having an exquiſitely fine taſte, which the waters of the lake Manzale give to all the fiſh that are in it. The dolphins ſwarm in this lake, eſpecially towards the mouth, which communicates with the ſea, and the mullets are ſtill more numerous than the dolphins.

They ſalt both the male and female mullet, and dry it either in the ſun, or in ſmoak, with this difference only, that they ſometimes ſell male mullets freſh, but never the female, becauſe as ſoon as they have made their draught, they take out the roes, which renders them unfit for ſale, ſo that they are obliged to ſalt them.

They alſo ſalt the queiage, and theſe with their roes are the only ſpecies of ſalt fiſh in which the Egyptians trade. They tranſport all theſe ſpices into Syria, Cyprus, and Conſtantinople; and furniſh Egypt with a ſufficient quantity.

In Egypt we find no ſalt fiſh imported, except the carier, which comes from the black ſea.

The Egyptians, in exchange for their fiſh, bring other commodities from Cyprus, ſuch as carob-bean, laudanum, and wine; from Syria, cotton and tobacco; from the Archipelago, ſponges; and from the red ſea incenſe, coffee, and Indian ſtuffs. When European merchants bring yellow amber and coral, the Egyptian merchants buy theſe goods to tranſport them to Cairo, and thence into Jemen and Ethiopia.

In this country freſh fiſh is very plentiful, and the common food of thoſe who live about the lakes. The heat of the climate is the reaſon why they cannot tranſport them, as they do in Europe, even to

places

places at a ſmall diſtance. The inhabitants of Cairo eat no freſh fiſh, except thoſe catched in the Nile, which generally have neither a good taſte nor a ſalutary quality, becauſe the bottom of the Nile is full of mud, on which the fiſh feed, and acquire from it a bad ſmell and reliſh. Such are the boultis, a kind of carpe, the bauri, the bayard, the chalbe, the thorn-back, the chilon, the lebis, the ſhad, which are the principal fiſh of the Nile, and which none but the inhabitants of Cairo would eat.

But yet there are in the Nile four kinds of fiſhes of ſo exquiſite a taſte and goodneſs, that formerly the Egyptians built temples and cities which they conſecrated to their names. The fiſhes of this kind are the variole, the quechoue, the bunni, and the quarmond.

The variole is of a prodigious ſize, and weighs a hundred, and ſometimes two hundred pounds.

The quechoue is of the ſize of a ſhad, and has a very ſharp ſnout; and this is the oxirinchus of the ancients.

The bunni is pretty large, weighs twenty or thirty pounds, and is the lepidolus ſo much extolled by the ancient Egyptians.

The quarmond, known in authors by the name of phayob, is black, one of the moſt voracious fiſhes, and ſometimes as large as the bunni.

Beſides, theſe fiſhes are never out of ſeaſon, but are found in plenty throughout the year in the Nile. We muſt add, that they are eaſily caught, ſince notwithſtanding their ſize, they are taken with a common net, as freſh water fiſh in Europe.

The Egyptians might take both ſea and river birds; ſuch as ducks, dippers, &c. with which the Nile is often covered; but they are particularly fond of catching ducks. For this purpoſe the fiſherman in the night goes into the water, up

to the chin, having a black bonnet on his head, gently approaches the fowls, and when he is near enough, ſuddenly throws a net over them.

On the Nile there are two ſorts of birds found in a ſurprizing quantity, ſome of which are common, and well known in Europe; as the flaman, the ſtockdove, the curlieu, the curlieu with his bill turned upwards, the heron with a crooked bill, the pelican, the crane, the ſnipe, the plover, the buſtard, the teal, the green headed duck, the ſea duck, the cormorant, the dipper, &c. But the Egyptians do not go a fowling, and the country people only take ducks and coots, in gins, in the ſame manner as they do the pelicans, but leave the other birds to multiply without interruption.

The ibis, the gooſe with golden feathers, the rice or Diamette hen, the ſaq-ſaq, known formerly by the name of trochilus, are properly birds of the Nile; and if there are any of them elſewhere, as in the lake of Manzale, they originally came from the Nile.

No animals in the Nile, except ſea-horſes and crocodiles, can properly be called monſters; the former are very common in the Upper-Egypt, eſpecially towards the cataracts of the Nile, tho' they are ſeldom ſeen about Cairo or in the Lower-Egypt. Theſe animals ſo ſeldom go in troops, that it is a rarity to ſee two of them together; beſides, they are ſo timorous and ſwift that nobody attempts to catch them, either by ſtratagem or otherwiſe,

But this is not the caſe with reſpect to crocodiles, which may be taken two ways; the firſt of which is entirely ſimple. They take the pluck of a cow, or a buffalo, or any other animal, and thro' the bait they paſs a hook, to which they

tie

tie a long cord, one end of which is fixed on the ſhore, while the other, to which the bait is fixed, is thrown into the Nile. As it ſwims on the ſurface the crocodile catches at it, and ſwallows the hook, after which the fiſherman draws his line, and brings the crocodile to ſhore, where the Arabians, who are uſed to ſuch exerciſes, kill him.

The other method is more dangerous, ſince they watch the crocodile, when he is on land and ſleeps extended on ſome hillock of ſand, upon which occaſion one of them ſteals ſoftly behind the bank; and when he is near enough he darts into his breaſt or belly a piece of wood armed with a harpoon, which is faſtened to a long rope. Upon this the crocodile being wounded, runs to plunge himſelf in the Nile, and drags with him the inſtrument, but the fiſherman follows him, ſeizes the cord, draws it, and brings the monſter to the ſide, where he kills him; and in the ſame manner the porpoiſes are caught.

The fleſh of the crocodile is white, fat, and exquiſite food when young. The females never lay their eggs but on the ſands; and it is remarkable, that their young come no ſooner out of the ſhell, than they have ſtrength to run with great ſwiftneſs towards the Nile, the care of the mother not being neceſſary either to defend the offſpring, or prevent their being taken.

The crocodiles grow very faſt, and are commonly twenty or twenty-five feet long. Plutarch ſays they live but forty years, tho' the Arabians, who know them better, ſay, that ſome of them live a hundred.

CHAP. XXXI.

Of the tree which bears wad; of the pepper, and lacca tree; of the wax produced by wild laurel trees.

THE tree which bears wad, or that kind of fine cotton used to stuff cushions, night-gowns, waistcoats, counterpanes, &c. grows spontaneously, and without any cultivation, and the inhabitants of Siam, who have much of it, call it tonnghiou. There are two species of the wad-tree, the greater and the smaller; the former, which is also of two sorts, resembles a nut-tree in its form, and the disposition of its branches, tho' the trunk is generally higher and straiter, almost like that of the oak. The bark, in certain places, abounds with short prickles, which are broad at the base, regularly disposed, and very near each other. The leaves equally resemble those of the nut and chesnut-tree, since they always grow five and five, and their pedicles, which are very short, unite in a sixth common pedicle, which is often more than a foot long. The flower is of the form and size of a moderate tulip; but its leaves are thicker, and covered with a kind of rough down. The calix, which contains them below, is thick, and of a clear green intermixed with points of black; and in the form of that of the nut-tree, with this difference, that it is not denticulated above, except in three places.

This description is common to the two species of the large wad-trees, tho' they differ in the following particulars. Some bear the flower before

he leaf, and others the leaf before the flower. The former are more prickly, and fuller of branches than the latter, bearing flowers of a citron-colour, which are ſoft to the touch; whereas the others are rough, and of a deep red within, but pale and yellowiſh without. In each there ariſes from the bottom of the flower a number of filaments with little buds, which are in a greater or leſs number, but divided into four little cluſters, conſiſting of ten buds each, and placed at the bottom of the flower. Between the leaves and theſe, there is a fifth, compoſed of ſixteen of theſe buds, in the midſt of which there is a piſtil a little opened at the top. In the others the buds are much more numerous, tho' without order or diſtinction, and as for the fruit, or rather the caſe which contains the wad, it is of an oblong figure, and reſembles thoſe angular banana figs, which the Portugueſe call figos carocas.

The wad-tree of the ſecond, or rather third ſpecies, is much leſs than the other two. Its trunk and branches reſemble thoſe of the Egyptian thorn, and its leaves are of a moderate ſize, of an oval figure, terminated in a point, and covered on both ſides with a down that is very ſoft to the touch. The principal fibres which ſhoot from the midſt of the leaf, are very diſtinct, and well ranged; and the huſks which incloſe the wad are compoſed of two tubes, terminated in points at each extremity, joined together, commonly nine or ten inches long, and as thick as a man's little finger; but ſome of them are more than a foot long. When they are broken green, they diſcharge a very white glutinous milk, and within them, when well preſſed, we find the wad, with ſeveral yellow pippins of an oblong figure. Theſe huſks hang upon woody

pedicles, which are only the continuations of the branches, which form their five little foliages on their surface.

Let us now proceed to the pepper-tree, which is a scandent shrub, and requires a support, for which reason it is generally planted at the foot of some tree, about which it may twine: for this purpose they make use in Siam of a little prickly tree; or else fix near it rods, as they do in Europe among French beans. It's stem has knots like those of the vine, and the wood itself, when dry pretty much resembles vine twigs, except in the taste, which is very sharp. This stem sends out on all sides a quantity of branches, which adhere to every thing they can reach, and the leaf when the tree is young is of an equable faint green, which becomes deeper as the tree grows older, tho' the leaf always preserves a faint colour on the upper side; its figure is oval, but towards its extremity it diminishes, and ends in a point. It has six little ramifications which spread from the middle, and are so incurvated towards the bottom, and joined near the top in such a manner as to form three ovals, tho' only five of these ramifications are to be distinguished. These ramifications communicate with each other by a congeries of pretty large fibres, and the greatest leaves are about six inches long. They have a pungent taste, and the seeds before their maturity are green, and fix'd in a calix without a pedicle. They are of the form and bigness of a large musket ball, and the pepper, altho' green, is very strong; this tree bears but little at a time, so that hardly seven or eight ounces can be obtained from it.

As for the lacca, it is principally found at Lahos, and at Camboye, adhering to two different kinds

kinds of trees, and certain red insects nearly resembling ants, produce it much after the manner in which bees make honey, by forming little cells like honey-combs. Some imagine the lacca is formed of the excrements of these insects, while others assert, that it is found about certain shrubs four or five feet high, whose trunks are not above an inch or an inch and a half in diameter; that it is generated by a species of dew, which falls every year in the months of June and July; and that certain red ants, fond of this dew, soon cover those trees with it. These two accounts, seemingly so different, may, in my opinion, be reconciled, if we suppose, that these insects or red ants do not of this dew produce the lacca, which is a kind of dregs, as wax is in regard of honey, but that juice which is extracted from it, and serves for those red dyes that are so much esteemed; and that with regard to lacca, they yield it either by their own excrements which they mix with the dew, or with the dust of certain flowers, or other terrestrial matter, which they perhaps gather like bees, nature having always an uniformity in her productions.

The islands situated between Acadia and New-England, are surrounded with wild laurels, which in autumn bear seeds not unlike those of the juniper. They fill cauldrons with them, and boil them in water; in consequence of which the virgin wax swims at the top, in proportion as the water boils. From half a sextier of these seeds they obtain near four pounds of wax, which tho' very pure and beautiful, is neither soft nor yielding. After some trial it has been found, that by mixing with it an equal quantity of the suet, either of beef, mutton, or lamb, they may make fine wax-candles, which are no less firm than useful. With twenty-four

pounds of wax, they can make two hundred candles above a foot long. There is such a number of these laurels in the woods, and on the shores of the sea, that a single person may in a day easily gather two sextiers of these seeds, which hang in clusters on the branches of the trees.

CHAP. XXXII.

Of the savage Natches, their religion, laws, assemblies, and festivals; form of their government; ceremonies of their marriages and funerals; their manner of carrying on war; their marches, encampments, and method of entertaining the ambassadors who come to treat of peace.

THE savage Natches live on the right of the river Missisippi, about a hundred leagues from its mouth, and are the only people on that continent who seem to have a national religion, which in a good many respects resembles that of the ancient Romans. They have a temple full of such idols as represent the different figures of those men and animals for whom they have the profoundest veneration. Their temple is about an hundred feet in circumference, has a door four feet high and three broad, but is without any windows. The roof of the edifice is covered with three matts laid over each other, to hinder the rain from hurting the walls. On the battlement are three wooden eagles, painted red, yellow, and white, and before the door is a sort of shed,

ſhed, where the guardian of the temple lodges, and round the whole there are paliſades, on the points of which they fix the heads of thoſe whom they have made captives in war.

Within the temple there are ſhelves placed at a proper diſtance from each other, on which are placed oval baſkets made of reeds, wherein are included the bones of their deceaſed chiefs, and near them thoſe of the victims who have deſtroyed themſelves to follow their maſters into the other world. Upon another ſhelf are ſeveral baſkets elegantly painted, and us'd as repoſitories for their idols.

In this temple they preſerve a perpetual fire, and take care to prevent its flaming, for which reaſon they only uſe the dry wood of the nut-tree, or the oak, and the elders are obliged in their turns to bring a large billet into the incloſure of the paliſade. The number of guardians for the temple is fixed, and they ſerve quarterly, ſo that he who is upon duty is like a centinel under the ſhed, from whence he ſees whether the fire is in danger of going out, and keeps it in by two or three great logs, which burn only at the extremity, and are never put upon each other, to prevent the flaming.

None of the women, except the ſiſters of the great chief, have the liberty of entering into the temple, which is alſo forbidden to the vulgar, even when they bring food for the manes of their relations, whoſe bones are depoſited in it. Theſe aliments are given to the guardian, who carries them to the ſide of the baſket, where the bones are depoſited; and this ceremony only laſts for a month, after which the diſhes are placed on the paliſades, and left to the wild beaſts.

The ſun is the principal object of their worſhip, and their chief takes upon him the title of brother to

the ſun, and has a deſpotic power over the people. His cottage is built on an eminence, and is of the ſame figure with the temple. Every morning he honours the levy of his elder brother, and ſalutes him with ſeveral ſhouts when he appears above the horizon, after which he orders them to light his great pipe, and makes an offering to him of the three firſt blaſts; then raiſing his hands above his head, and turning from the eaſt to the weſt, he pretends to ſhew him the courſe he is to ſteer. On entering this cottage we ſee ſeveral beds on the left, but on the right only that of the grand chief, adorned with ſeveral paintings. This bed is incloſed by a paliſade of canes, is made of very hard ruſhes, and has only a ſquare log of wood which ſerves for a pillow. In the midſt of the cottage we ſee a ſmall ſtone, and none muſt approach the bed till he has gone round this ſtone. Thoſe who enter make their ſalutations by ſhouts, and advance to the center of the hut, without looking to the right, where the chief is; after which they make a ſecond ſalutation, raiſing their hands above their heads, and ſhouting three times. If it is a perſon whom the chief reſpects, he anſwers by a gentle ſigh, and makes him a ſign to ſit down, on which occaſion they thank him for his politeneſs, by another ſhout. Upon each queſtion propos'd by the chief, they give a ſhout before they anſwer; and when they take leave they give one continued ſhout, till they are out of his preſence.

When the great chief dies, they pull down his cottage, and build another for his ſucceſſor. The Natches believe the ſoul's immortality, and ſay, when they leave this world, they are going to inhabit another, and be rewarded or puniſhed in it. The rewards they expect conſiſt chiefly in feaſtings,

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and their puniſhment in the privation of all pleaſures. They ſo implicity obey the will of their chief, that none of them dare refuſe him his head, if he demands it. One of their principal articles of religion, eſpecially among the domeſtics of the chief, is to honour his funeral, by dying with him, in order to ſerve him in the other world, where they hope to enjoy the moſt exalted happineſs in the retinue of their chief.

To form an idea of this ſtrange ceremony, we muſt conſider, that as ſoon as the preſumptive heir of the great chief is born, each family which has a ſucking child, muſt pay him homage, and they chuſe always among theſe children a certain number, who are deſigned for the ſervice of the young prince; and when they are of a competent age, they give them an employment adapted to their talents. Some of them paſs their lives either in hunting or fiſhing for the ſervice of his table; others are employed in agriculture, and others only wait upon him in publick. If he happens to die, all his domeſtics ſacrifice themſelves with pleaſure to follow ſo dear a maſter, put on their beſt cloaths, go to a place oppoſite to the temple, where the people are aſſembled, and after having danced and ſung a long time, they put round their necks a rope of oxes hair, with a nooſe, and immediately the proper officers ſtrangle them, exhorting them all the time to meet their maſters again, and take in the other world more honourable employments than thoſe they have occupied here below.

The ſame ceremony is alſo obſerved on the death of the brothers and ſiſters of the grand chief; and all his wives ſuffer themſelves to be ſtrangled, that they may follow him, unleſs they have children at the breaſt, tho' ſome of them ſeek for nurſes,

nurſes, or ſtrangle their children, not to loſe the right of ſacrificing themſelves.

The government is hereditary, tho' it is not the ſon of the reigning chief that ſucceeds his father, but the ſon of his ſiſter, or of the firſt princeſs of the blood, which policy is founded on the known incontinency of their wives; for they are not ſure, ſay they, that the children of their wives are of the royal blood, whereas the ſon of the ſiſter of the grand chief is at leaſt ſo on the ſide of the mother.

The princeſſes of the blood never marry any but perſons of a low condition, and have only one huſband; but they have the liberty to divorce him when they pleaſe, and chuſe another in the nation, provided he is not of the ſame family. If the huſband is unfaithful to the marriage-bed, the princeſs immediately orders his brains to be knocked out, but ſhe is not ſubject to the ſame law; for ſhe may have as many lovers as ſhe pleaſes, without the huſband daring to mutter one word; in her preſence he behaves with the higheſt reſpect, never eats with her, and ſalutes her with ſhouts, as all her domeſtics do, ſo that the only pleaſure he enjoys, is to be exempted from labour.

The great chief nominates perſons to all the conſiderable employments of ſtate; ſuch as generals; the two maſters of ceremonies in the temples; the other two officers who preſide over the ceremonies obſerved when ſtrangers come to treat of peace; the inſpector of all public works; four others appointed to regulate the feaſts in which the nation, and thoſe ſtrangers who come to viſit them, are entertained.

Every year the people aſſemble to ſow a vaſt field with Indian corn, beans, pumpkins, and melons, and they meet in the ſame manner to reap them.

them. Every ſummer, towards the end of July, the people aſſemble by order of the grand chief, to aſſiſt at the great feaſt, which continues three days and three nights. Some bring game, and others fiſh, on which occaſion they dance almoſt perpetually. The great chief and his ſiſter are in an elevated apartment, which is covered with leaves, from whence they contemplate the joy of their ſubjects. The princes and princeſſes, and thoſe of diſtinguiſhed rank, are pretty near the chief, to whom they pay their reſpects and ſubmiſſions by a great number of ceremonies.

Nothing can be imagined ſimpler than the ceremonies of their marriages; for when a young fellow intends to marry, he muſt ſpeak to the father of the girl, or elſe he being abſent or dead, to the eldeſt brother: they agree for the price to be paid in ſkins or merchandize, and tho' a girl has been a proſtitute, they do not refuſe her on that account, provided they think that ſhe will change her conduct when ſhe is married. As for the relations of the girl, their only care is to inform themſelves whether the lover is a good hunter, a ſkilful warrior, or an excellent husbandman, ſince theſe qualities conſiderably diminiſh the price of the girl. When the parties are agreed, the bridegroom goes a hunting with his friends, and when he has got as much game or fiſh as will regale the two families, they go to the bride's houſe, where the new married couple, who eat on the ſame plate, are particularly waited on. The repaſt being over, the new married man preſents a pipe to the relations of his wife, and then to his own, after which the company retires; and the next day the huſband leads his wife to his father's, where they ſtay till the family has built them a cottage.

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Their laws permit the Natches to have as many wives as they pleaſe; but the common people have generally but one or two. The heads have more, becauſe by the privilege of having their fields cultivated by the people without any wages, the number of their wives is no burden to them. They content themſelves with ſending for the father of the girl they have a mind to marry, and declare they rank her with their other wives; the marriage is thus at once compleated, and tho' they have ſeveral wives, only two or three ſtay in the cottage; while the others live with their parents, and their huſbands viſit them when they pleaſe.

At certain times of the moon the ſavages do not cohabit with their wives, and the men are ſo little inclined to jealouſy, that they ſometimes lend a wife to a friend, which indifference ariſes from the liberty they have of changing their wives when they pleaſe, tho' after a child is born, nothing but death can ſeparate them.

When this nation makes a levy for a war, the chief of the party fixes two ſtandards, which are two red poles adorned with plumes, arrows, and axes of the ſame colour, and theſe poles are full of iron ſpikes towards the quarter, on which they deſign to make war. Thoſe who intend to enter into the army, after having bedaubed themſelves with ſeveral colours, come to harangue the general, and this harangue conſiſts in a thouſand proteſtations of ſervice, by which they aſſure him they are extremely glad to learn under ſo ſkilful a warrior, the noble art of ſcalping, and that for his ſake they neither are afraid of hunger, nor the fatigues to which they may be expos'd.

When a competent number of ſoldiers preſent themſelves, he orders a certain potion prepar'd at

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his houſe, which they call the medicine of war, and which is an emetic compos'd of a root, which they boil in great cauldrons of water. Sometimes about three hundred of the ſoldiers ſit round the cauldron, and each has a large quantity of this liquor given him, which they ſwallow at one draught, and vomit it up with ſuch violent efforts, that they are heard at a conſiderable diſtance.

After this ceremony, the general fixes the day of departure, that each may prepare neceſſary proviſion for the campaign, during which interval the ſoldiers repair evening and morning to the rendezvous, where, after dancing and recounting their exploits, they ſing the ſong of death.

But theſe bravoes are ſo ſuperſtitious, that after all theſe ceremonies, they ſtop their march all on a ſudden, if they but hear a dog howl in a particular manner.

In their expeditions they always march in files, and four or five of the beſt pioneers go about a quarter of a league before the main body of the army, to obſerve the poſture and diſpoſition of the enemy. They encamp every evening an hour before ſun-ſet, and lye about a great fire, every one having his arms by him; but before they encamp they take care to diſperſe twenty ſoldiers to the diſtance of half a league from the camp, to prevent their being ſurpriſed. They never place centinels in the night-time; but as ſoon as they have ſupped, extinguiſh all the fires. They alſo fix on a ſpot where they are to rally, in caſe they ſhould be attacked, and routed in the night.

As the generals always carry along with them their idols, or what they call their ſpirits, carefully incloſed in ſkins, in the evening they hang them up on a little red pole, which they incline a little, that

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it may point to the enemy, and the ſoldiers before they go to ſleep, with their ax in hand, paſs one after another dancing before theſe pretended ſpirits, and making great menaces towards the quarter of their enemies.

When the army is conſiderable, and enters the enemy's country, they march in five or ſix columns, and have many ſpies; and if they perceive that their march is diſcovered, they commonly return, and only a ſmall company of about twenty, ſeparate from the army, to ſurpriſe any ſtragglers from the villages, and on their return they rejoice, on account of the number of the ſcalps they have brought with them. If they have brought any ſlaves, they make them ſing and dance ſome days before the temple; after which they make a preſent of them to the relations of thoſe who have been killed in the war, who weep during this ceremony, and drying up their tears with the ſcalps, pay great reſpect to the ſoldiers who have brought theſe ſlaves, whoſe miſerable lot it is to be burnt.

The Natches, as all the other people of Louiſiana, diſtinguiſh by particular names thoſe who have killed a greater or a ſmaller number of enemies, and to deſerve the name of a great manſlayer, a perſon muſt have taken ten ſlaves, or ſcalped twenty heads. Thoſe who have made their firſt ſlave, or ſcalped their firſt head, do not for ſome time after their return, either lye with their wives, or eat any fleſh, but muſt live on fiſh and broth for ſix months. If they ſhould neglect to keep this faſt, they believe the ſoul of him they have ſlain would deſtroy them by incantation, that they ſhould never more gain any more advantages over their enemies, and that the leaſt wounds would prove mortal.

They take great care, that the general ſhould never expoſe his life in battle, and if he ſhould be killed,

killed, the heads of his party, and other principal warriors are put to death at their return; but ſuch examples never happen, by the precautions taken to prevent this calamity.

This nation, as all others, has its phyſicians, who are generally old men, whoſe art conſiſts in ſeveral pieces of legerdemain. They dance, ſing, ſmoke, ſwallow the fumes of tobacco, and put themſelves into ſuch violent contorſions, that tho' they are quite naked, and muſt ſuffer cold, their mouth is always full of froth. They have a little kind of baſket, wherein they pretend to carry their ſpirits, that is to ſay, little roots of different kinds, the heads of owls, little packets of wild beaſts hair, ſome animals teeth, ſeveral pebbles and ſtones, with other frivolous things, and pretend to faſt, while they cure the ſick.

They ſeem perpetually to invoke what they have got in the baſket for the recovery of the patient, and ſome of them have a certain root, which by its ſmell renders ſerpents ſtupid, and lays them aſleep. After they have well rubbed their hands and body with this root, they will hold theſe animals without fearing their bite, which is mortal, while others make an inciſion with a flint in the part affected, and ſuck out all the blood they can; and in ſpiting it out on a plate, they diſcharge along with it a little piece of wood, or ſtraw, or leather, which they had concealed under their tongue, and then deſiring the relations of the patient to take notice of it; behold, ſay they, the cauſe of the diſorder. Theſe phyſicians are always paid beforehand; and if the patient recovers, their profit is conſiderable; but if he dies, they are ſure to have their brains beat out by the relations or friends of the deceaſed. This practice prevails univerſally, and the relations

of

of the phyſician find no fault, nor teſtify any reſentment.

The ſame happens to other jugglers, who undertake to procure rain or fine weather. Theſe are commonly idle old men, who diſliking the labour requiſite for hunting, fiſhing, and the cultivation of the land, exerciſe this hazardous profeſſion to maintain their families. Towards the ſpring, this nation tax themſelves to obtain of theſe jugglers a favourable ſeed and harveſt time; and if it is conſiderable, they gain in proportion; but if otherwiſe, they ſeize them and knock their brains out. Thus they who engage in this profeſſion, riſk their lives for a precarious ſubſiſtence; but in other reſpects their life is very idle, having nothing to do but faſt and dance with a pipe or reed in their mouth, which is full of water, and pierced at the end like a watering-pan, which they blow into the air towards that quarter where the thickeſt clouds appear. They hold in one hand their ſiriouet, which is a kind of coral, and in the other their ſpirits, which they preſent to the clouds, calling upon them to burſt upon their fields.

If they want fine weather, they make not uſe of theſe pipes, but get upon the tops of their cottages, and with one of their arms extended make a ſign to the clouds, puffing with all their ſtrength, that it may not hover over their lands, but diſperſe; and when the cloud is diſperſed according to their wiſh, they ſing and dance about their ſpirits, which they place properly on a pillow. On this occaſion they redouble their faſting; and when the cloud is paſſed, they ſwallow the ſmoak of tobacco, and make an offering of their pipes to heaven.

Tho' they ſhew no mercy to theſe knaves when their pretended power has no effect, yet the profit they gain when they happen to ſucceed, is ſo great, that

that there are a great number of theſe ſavages who are regardleſs of the danger. We ſhould obſerve, that he who undertakes to procure rain, never engages to procure fair weather; ſince another ſpecies of quacks enjoy this privilege, and when they are aſked the reaſon, they anſwer, their ſpirits have but the power of obtaining one of the two.

When one of theſe ſavages dies, his relations lament over him a day, and then cover him with his beſt cloaths; that is, they paint his hair and face, and adorn him with his plumages, then carry him to the grave deſigned for him, placing at his ſide his arms, a kettle, and victuals. For a month, his relations go at break of day, and at the approach of night, to weep for half an hour over the grave, every one mentioning his degree of conſanguinity; if it is a father of a family, the widow bawls out, my dear huſband, how much I bewail the loſs of thee; the children ſay, my beloved father; ſome, my uncle; ſome, my couſin, &c. The neareſt relations continue this ceremony for three months, cut off their hair to denote their ſorrow, ceaſe to paint their bodies, and never go to a place of diverſion.

When any foreign nation comes to treat of peace with the ſavage Natches, couriers are ſent to give notice of the day and hour of their entrance. The great chief gives orders to the maſter of the ceremonies, to prepare all things for this grand tranſaction, and they begin by nominating thoſe who are to maintain the ſtrangers daily; for the chief is never at this expence, but always his ſubjects. They then clear the roads, ſweep their cottages, place benches in a great hall, which is on the elevated ground of the chief, at the ſide of his cottage. His ſeat, which is on an elevation, is painted and

adorned, and the bottom is covered with large mats.

The day on which the ambaſſadors make their entry, all the nation aſſembles, and the maſter of the ceremonies places the princes, the heads of villages, and the elders of families, near the grand chief. When the ambaſſadors come, and are fifty paces from the great chief, they ſtoop, and ſing the ſong of peace; and this embaſſy generally conſiſts of thirty men, and ſix women. Six of the fineſt perſonages, and who have the beſt voices, march firſt, and are followed by others, who ſing likewiſe, regulating the cadences with their coral, while the ſix women form the treble.

When the chief bids them approach, they advance; and thoſe who have the pipes ſing, and dance with great agility, turning round each other, and ſometimes appearing in front, but always with violent motions, and extraordinary contorſions. When they are come into the circle, they dance about the chair, on which the grand chief is ſeated, rub themſelves with their pipes from head to foot, and then fall back to thoſe of their train. They fill with tobacco one of their pipes, and holding fire in one hand, they advance in a body to the chief, and deſire him to ſmoke. They blow the firſt mouthful of the ſmoke up into the air, the next towards the earth, and the others round the horizon: After which they without ceremony preſent the pipe to the princes, and all the chiefs.

This ceremony being over, the ambaſſadors, in ſign of the alliance, go and rub their hands upon the breaſt of the chief, and rub themſelves all over the body; after which they place their pipes before the chief upon ſmall forks. The ambaſſador who is charged particularly with the orders of his nation, harangues for a full hour, and

when

when he has done, they make a ſign to the ſtrangers to ſit down upon ſeats ranged near the grand chief, who anſwers them in a diſcourſe of the ſame length: after which, the maſter of the ceremonies lights a great pipe, or tube of peace, and makes the ſtrangers ſmoke, who ſwallow the fumes of the tobacco. The great chief aſks them if they are well, while others about him ſhew them the ſame politeneſs; after which they are conducted to a cottage prepared for them, where they are regaled.

In the evening, about ſun-ſet, the ambaſſadors with their pipe or reed in hand go to meet the grand chief, and taking him on their ſhoulders, carry him to their own tent or cottage, where they ſpread a large ſkin, upon which he ſits him down. One of them places himſelf behind him, and putting his hands upon his ſhoulders, agitates his whole body, while the others, ſeated in a circle on the earth, ſing their noble exploits. After this ceremony, which is performed evening and morning, for four days, the great chief returns to his own abode, and when he pays the laſt viſit to the ambaſſadors, they fix in the ground a ſtake or pole, at the foot of which they ſit down: the ſoldiers of the nation put on their fine dreſſes, dance, and ſtrike the pole, and relate in turn their martial actions; they then make preſents to the ambaſſadors, which conſiſt in cauldrons, axes, gun-powder, ball, &c.

The following day the ambaſſadors are permitted to walk all over the village, which they could not do before; after which they every evening entertain them with ſhews, that is to ſay, the men and women in their beſt dreſſes meet in the market-place, and dance till midnight; and when they are ready to return, the maſters of the ceremonies furniſh them with proviſions neceſſary for their

voyage. Such are the ceremonies, such the genius of the savage Natches.

CHAP. XXXIII.

The singular dexterity of the Chinese in imitating fruits, insects, and butterflies; the shrub that furnishes the matter of which these flowers are made; colours laid on them, and the manner of giving them their lustre.

THE Chinese workmen, especially those in the palace, manage silk with great ingenuity, and know how to paint with a pencil all kinds of leaves upon paper. They resemble pretty much those embroidered papers which are alike on both sides.

These flowers which so nearly resemble nature, are neither made of silk, nor any kind of stuff, nor paper, but of a reed, or species of cane, tho' they neither employ its bark nor root, which seemingly might be divided into small shreds.

But we must first know what this reed or shrub is which affords this substance.

The tong-tsao, or shrub of which we now speak, grows in the most shady and covered places. They have likewise given it the name of tongt-mou, because, according to the Chinese physicians, it is aperitive, laxative, proper to open the pores, and remove obstructions. This shrub grows on the declivity of mountains, and its leaves resemble those of the palma christi: The middle of its trunk is full of a white medullary substance, which is very

very light, ſmooth, and agreeable to the eye; ſo that the ladies make ornaments of it.

This plant grows more than a fathom high, and its leaves, ſays a famous Chineſe author, reſemble thoſe of the water lily, but are more oily: there is in the middle of the trunk within a kind of wood like a reed, a very white ſubſtance, which is not ſo cloſe as the fleſh of a melon; but is as ſmooth, and leſs ſpongeous than the marrow or pith of other trees, eſpecially that of elder. This light body is a mean betwixt wood and common pith. When theſe reeds are tender, they boil them, and make a ſyrup. The inſpiſſated juice which approaches in conſiſtence to ſoft electuaries, ſuch as that of treacle, or turpentine, is ſweet, agreeable, and if mixed with fruits, gives them a better and more exquiſite taſte.

Its ſtem is divided, ſays the ſame author, like the bamboo, by different knots, which have betwixt each two of them twigs or tubes of a foot and a half long, which are largeſt near the root of the plant. They cut this ſhrub every year, and the next it ſhoots out again. To preſerve the pith from moiſture, which is pernicious to it, you muſt keep it incloſed in a dry place, without which precaution it cannot be uſed.

Perhaps ſome may imagine, that the tong-tſao is the ſame with the papyrus which grows in marſhes and ditches about the Nile, ſix cubits high, and from the ſtalk of which the ancients extracted the pith, and made a kind of liquor of it, with which they waſh'd the leaves they deſigned to write on. It muſt be granted they extract from the pith of tong-tſao a kind of leaf, which at firſt one would miſtake for paper; but this leaf is very different from that of the papyrus, ſince they agree

in nothing but in this, that their woody parts are equally inflammable.

The medicinal qualities attributed to the tong-tſao, will perhaps make it be looked upon as a kind of a medullary elder tree.

If theſe hints could enable us to find out in Europe a ſhrub like to that which furniſhes the Chineſe with the matter of which their artificial flowers are made, it would not be difficult for an European to imitate, or even ſurpaſs the Chineſe artiſts in this particular, ſince ſuch a one would be able to apply more delicately agreeable colours to a ſubſtance that is adapted to receive them, and to preſerve them in their vivacity and brightneſs; but this art of the Chineſe deſerves explanation.

The firſt operation of reducing theſe ſticks of pith into leaves of a fine delicate texture, is not the work of thoſe who make the flowers, ſince they are brought prepared from the province of Kianguan, and might be taken, as I have ſaid, for true reams of paper, cut into ſuch a form, with a particular intention.

A piece of pith thicker or longer, as they would have the leaves broader or narrower, is put upon a plate of copper between other two plates; and at the ſame time that they make it ſlide gently with one hand between the two plates, with the other, and an inſtrument not unlike a ſhoemaker's knife, they raiſe off a fine ſurface, which ſeparates, juſt as we take off with a plane thin ſhavings from a piece of ſmooth wood. What is thus taken off from the pith reſembles large rolls of paper, or very fine parchment, and is made up in parcels, which the workmen uſe for their artificial flowers; but it muſt be obſerved, that to hinder theſe films or pellicules of the pith from tearing in handling them, either in painting or cutting them, they muſt

muſt be dipped in water by plunging them, and drawing them out inſtantly; and this intention might be alſo anſwered by leaving them ſome time before the operation in a cool and moiſt place; ſo that by means of either of theſe precautions, there is no fear of their breaking or ſeparating.

There is another obſervation to be made upon the colours they apply; for the Chineſe painters employ none but ſoft colours; which have neither gum, nor mercury, nor ceruſs, nor alum, nor vitriol, in their compoſition. Theſe are a ſort of water colours, and conſequently not the ſtrongeſt. We ſee in the places where their workmen are employed, ſeveral little leaves to which they have given different dyes, which are, as it were, the preparation for other colours, which different painters are to apply to them, that they may repreſent nature. Tho' this labour, when conſiderable expence has been laid out on it, is delicate and valuable, yet their works are not generally ſold dear, tho' more than a day is required to finiſh the ſmalleſt flowers with their ſtems and leaves. They give them the different figures they ought to have, by preſſing them on the palm of the hand with inſtruments made for that purpoſe. It is with fine pincers that the workmen take hold of them, and join them with the glue called nomi, which is a kind of rice well boiled and thickened. The hearts of flowers, for example, of roſes, are made of the fine filaments of flax that are delicate and coloured, and the little heads of theſe filaments are formed of the ſame ſubſtance.

The Chineſe workmen give a luſtre to the flowers by applying the pellicules of tong-tſao already painted on melted wax, but they muſt uſe a great deal of art and attention, that the wax be neither too hot, nor cold; ſince either of theſe inconve-

niences would spoil the whole work. They must likewise chuse a serene day; because rainy weather is not proper for such performances. They have an easier method, which is to dip a pencil in melted wax, to pass it lightly over the leaf, and rub it with a linen cloth.

It is with the pith or marrow of the same tree, that they imitate perfectly fruits, the small insects which adhere to them, and especially butterflies, than which nothing can be imagined more natural. They execute their designs in the following manner: if they want to form a peach so as to resemble nature, with pieces of canes finely split they make the body of the work, which they fill with a paste composed of the sawings of that odoriferous wood, of which they make their perfume sticks, mixing with it the saw-dust of an old peach-tree, which gives the painted fruit the smell of a peach. Then they apply the skin, which consists in one or two leaves of the tong-tsao, which represent the skin of a peach much more naturally than silk, or the best prepared wax; after which they give the proper colours and shadings.

But most commonly they take little sticks, or pieces of the pith of cane or common reeds, which they mix with strong glue, and of this make the body of the fruit; after finishing it with the scissars, they put on a layer of odoriferous paste; and when all is dry, they apply a leaf of paper, which they cover with the leaves of tong-tsao; after which they paint the fruit, wax it, and make it glossy, by rubbing it with a linen cloth.

The wings of the butterflies, which are so artfully imitated, that one would take them for natural, are made by the same art as the leaves of certain flowers, and these are the butterflies, which are called in the Chinese language yefer, or flying leaves.

Some

Some of them have ſuch ſhining colours, and are ſo variegated, that they may be called flying flowers; and indeed they are always produced in the fineſt flower gardens.

There is a lemon in China, unknown in Europe, which is much eſteemed for its beauty and ſmell, is very ſweet, and may be kept a long time. They candy it with ſugar, and it is an excellent ſweetmeat. Its uncommon ſhape makes the Chineſe call it focheou, which ſignifies the hand of the god Fo, ſince it reſembles the fingers when clinched. The workmen, who imitate this fruit with the pith of tong-tſao, put ſome wires under the matter which form the fingers, and give them the due proportion. This fruit is of a ſurpriſing figure, and is ſometimes of the ſize of the largeſt lemon.

CHAP. XXXIV.

Situation and extent of the leſſer Tartary; the authority and revenues of the kan; manners, cuſtoms, and religion of the Tartars, whether called Precops, Nogais, Circaſſians, or Kalmouchs.

THE kan of the leſſer Tartary is maſter of a large country, and is looked upon as the hereditary heir of the Turkiſh empire, in default of heirs male of the Oſmans. Notwithſtanding theſe pompous titles, he is but a vaſſal of the grand ſignior, who eſtabliſhes, and depoſes him arbitrarily, yet always ſhews him ſo much reſpect, as

as never to put him to death, but only ſubſtitute a prince of the blood in his ſtead.

Theſe princes of the blood of Tartary, who are called ſultans, are not excluded from public affairs, and ſhut up like thoſe of Turky, ſince they have great places, and each his palace and equipage. The dignity of their birth procures them many friends, who are devoted to their intereſt and fortunes, which often produces commotions in the ſtate, and would cauſe more if their ſultans were rich, who indeed are commonly very indigent.

The kan himſelf has a ſmall revenue for a ſovereign prince, ſince the rents of his own lands, a part of the taxes, and ſome ſmall perquiſites, are very near his whole income; tho' it is true, he has not occaſion to live in an expenſive manner: his guard, which conſiſts of about two thouſand men, is maintained at the grand ſignior's expence, ſo that his greateſt armies coſt him nothing, either in levying or maintaining. The Tartars are all ſoldiers, and the place of rendezvous is no ſooner aſſigned, than they come at the day appointed with arms, horſes, and all proviſions. The hope of booty, and the liberty of plundering, are their recompence.

The Tartars ſubject to the kan are called by the different names of Precops, Nogais, Circaſſians, and Kalmouchs. The Precopian Tartars are thoſe who inhabit the great peninſula of Krimea, which was the Cherſoneſus Tauricus of the ancients. Geographers make it about ſeventy or eighty leagues long, and about fifty broad. Its figure nearly reſembles a triangle, the baſe of which to the ſouth conſiſts of a chain of high mountains, which run eight or ten leagues high into the country. The two ſides are ſpacious open plains,

where

where the winds blow with uncommon violence. In all the Krimea there are not above ſix or ſeven cities, which deſerve the name: Bagchſara, Kaffa, Karaſou, Guelo, Orkapi, and the fortreſs of Yegnikalee: Bagchſara, the capital of the country, and the common reſidence of the kan, is ſituated in the midſt of his territories, and is a city conſiſting of about a thouſand houſes, ill built and ill tenanted.

The ſoil, tho' naturally good, is not univerſally cultivated, but ſuch parts as are taken any care of, produce excellent corn. The gardens and paſturage take up a great part of the ground, and rivulets are wanting in the plains, but are ſupplied by many deep wells, that plentifully ſupply ſeveral villages with water. The climate would be ſufficiently temperate, were it not for the impetuous winds; for in winter the raging north wind is hardly ſupportable.

The Precopian Tartars are of a middling ſtature, well made, and have very robuſt conſtitutions. They are accuſtomed betimes to ſuffer hunger and thirſt, heat and cold; they content themſelves with little, when they have but little; and when the fancy takes them, they readily run into the greateſt exceſſes. Their language is a Turkiſh jargon, as ill pronounced as French by an ignorant Swiſs; and their religion is Mahometiſm, according to the Turkiſh creed.

Tho' the plurality of wives is allowed, few of them have more than one, but rather chuſe to keep good horſes for the purpoſes of war. Tho' their law forbids them to drink wine, yet they make very free with it, when they can get it, and ſay it is juſtly forbidden men of letters, and calm life, ſuch as lawyers, clergymen, merchants, &c. but that it gives courage to the ſoldiers, ſuch as they

they all are. When they have it not, they ſupply the want of it with a very ſtrong and intoxicating liquor made of ſour milk, and fermented millet, which they call boſa. Their common food is fleſh, milk, and a paſte which they make of millet meal ſteeped in water. They eat neither roots nor pot-herbs, which, they ſay, are the food of beaſts. Horſe-fleſh is a delicate repaſt for them, and their manner of cooking it, is to broil it a little on the coals, or if they are on a journey, to heat it under their ſaddles; and when they have with this a little mares milk, they think their repaſt delicious. The Precopians have two great faults, ſince they are impudent lyars, and extremely ſelfiſh. In the time of war they can raiſe from twenty to thirty thouſand men.

The Nogais Tartars wander in the deſarts, like the ancient Scythians, whoſe ſavageneſs and brutality they have ſtill retained. Their country begins at the iſthmus of Krimea, and extends itſelf over immenſe tracks in Europe and Aſia, from the Budziak to the river Koubam, which ſeparates them from the Circaſſian Tartars. The Nogais are naturally barbarous, cruel, revengeful, miſchievous neighbours, and worſe gueſts. All this is ſeen in the air of their countenances, which are hideous and deformed. They are born blind, and do not ſee for ſeveral days. Their language has not ſuch a Mixture of the Turkiſh, as that of the Precopians; and they have not amongſt them either villages, towns, or fixed habitations, ſince their houſes are covered waggons, in which they tranſport their baggage and families. When they have a mind to ſtop in any part, either for the conveniency of a river, or plenty of paſturage, they pitch their tents, which are huts covered with felt, round which they make an incloſure of ſtakes to ſecure their

their families and flocks. They have a captain called bey; but thoſe of Budziak are governed by a lord commiſſioned by the kan, and who is ſometimes a ſultan. Their food is milk, fleſh, and boſa, in which they commit the moſt monſtrous exceſſes. When a horſe dies, or breaks a leg, he is a great feaſt for them, to which they invite their friends, and drink till they are ready to burſt. It is from the Nogais the kan has the greateſt number of ſoldiers, ſince they can furniſh him, in caſe of neceſſity, with a hundred thouſand men. Each man commonly is proprietor of four horſes; that which he rides, another for a change, and to carry his proviſions, and the others to carry his ſlaves and booty. Wo to the countries into which they come, ſince their marches reſemble conflagrations or hurricanes; for where ever they paſs they leave nothing but the earth behind them.

A particular cuſtom of the Nogais is, that which they obſerve at their marriages, ſince ſome of the common relations of the bride and bridegroom divide into two companies and fight together, that they may receive ſome ſlight wounds, from whence a little blood may flow; which, according to them, is a ſure preſage, that the male children of the marriage will be ſtout warriors. It is another cuſtom eſtabliſhed among them, that at the birth of their children the friends and relations come to the door of the father's houſe, and make a great noiſe with pots and kettles, to fright, as they ſay, and ſcare the Devil, that he may have no power over that child.

The Nogais Tartars pay annually to the kan two thouſand ſheep, which they ſend him at three different times. At the great bairam they are obliged to wiſh him happy feſtivals, by four of their principal

principal mirzas, who are equivalent to our knights, with a preſent of ſome horſes, and two birds of prey trained up for the game; upon which occaſion the kan preſents each of theſe mirzas with a compleat ſuit.

The proceedings againſt criminals in this country are very ſhort, ſince, when a Nogais has wounded one of his comrades, they ſend for all the neighbours of the criminal, and the relations and friends of the wounded perſon, to come with whips in their hands, with which they often beat the criminal, ſo as to leave him for dead. If the crime is murder, they put the criminal inſtantly to death, without the leaſt pity; but if it is a duel in form, and they find that every thing was done without treachery, the ſurvivor is not puniſhed.

In all this country we find nothing remarkable, except the remains of an ancient city, where there are ſeveral marble tombs with latin and greek inſcriptions, which are now almoſt effaced. There is a ſort of fortification near the river, which comes from the neighbourhood of Azak, where they have a guard to watch the motions of the Coſacks, and hinder them from invading their country by ſurpriſe.

Their tents are ſomething like windmills, and their chimney is ſo contrived as to turn with the wind, that they may not be incommoded by the ſmoke. The tent of a mirza is diſtinguiſhed from others by a ſabre, painted near the top of the chimney. When they celebrate a feſtival or marriage, they kill a horſe, make a haſh of the fleſh, and ſerve the head up intire. If there is in the company a diſtinguiſhed perſon, they preſent him with the fatteſt inteſtine of the horſe, which is eſteemed a great delicacy. In their journies they carry with them ſome of theſe entrails dried and ſmoaked,

ſmoaked, to regale thoſe who diſtinguiſh themſelves in battle, or gain the greateſt booty, which they never fail of dividing in equal portions.

Theſe tartars can bear hunger five or ſix days, and their horſes can do the ſame. They often undertake journies of three months, without carrying any proviſion with them, relying upon what chance may furniſh them with.

There are no mountains in their country, but ſpacious plains, watered by ſome rivers, whoſe banks they cultivate, in order to ſow their millet. When they are marching to attack a city, they ſay they ſmell the air of it above two leagues off, becauſe that which they breathe in the open fields is infinitely more pure.

In time of war they are obliged to furniſh the kan with forty thouſand men; but they always ſupply him with ſixty thouſand, not being able to live but by the booty they make on the lands of enemies or neighbours.

The gentlemen carry always a bird on their hand, and there is nothing that can force them to do an action inconſiſtent with their nobility, which however they have no knowledge of, but by oral tradition.

Theſe are the maxims of thoſe who go to war. They look upon every thirteenth year as unhappy, for which reaſon a Nogais does not go to war till he is fourteen years of age; nor does he enter the field of battle in the twenty-ſixth and thirty-ninth years of his age, nor do they carry about with them in theſe years any arms, which, ſay they, would prove fatal to the bearer. They pretend to have had this revelation from one of their prophets; and they affirm that none of their warriors ever returned, who went to war in thoſe unhappy years, which they generally ſpend in faſtings and prayer. On theſe occaſions

occaſions they are forbidden to contract marriage, or bear about them the weight of a pound. But this climacteric year being over, they make a great feaſt for their friends and relations, in which they intoxicate themſelves with their boſa, which is made of fermented millet, and is as ſtrong as brandy.

The Nogais have neither corn nor wine, nor ſalt, nor oil, nor ſpices; and the millet of the country, and milk of their cattle, is their common food. They have oxen, ſheep, and wild fowl, but are ſo ſenſeleſs as to boil their milk till it becomes hard as a ſtone; after which they make balls of it, and dry them in the ſun, and when they want to uſe them, they dilute them in water, and compoſe a drink, which is delicious to them in hot weather.

The Circaſſian Tartars inhabit Adda, which is bounded on the north by the Nogais, on the ſouth by the black ſea, on the eaſt by Georgia, and on the weſt by the Cimmerian Boſphorus, and the gulph that ſeparates them from the Krimea; and upon this gulph there is a ſea-port of great trade, called Taman, from which they export ſkins, honey, wax, and other commodities. The taxes are paid, one half to the grand ſignior, and the other to the kan, each of whom has three per cent.

The mountain Circaſſians live in woods, and are not ſo ſociable as the reſt; but thoſe who live in the plains have villages, and ſome ſmall cities on the borders of the red ſea, where there is a trade carried on. The beys, or lords who govern them, deal in the ſale of their vaſſals, and fathers and mothers in that of their children. The Circaſſians are reckoned better hunters than warriors; and it may be ſaid of them in general, that they are the leaſt diſpoſed to war of any of the Tartar nations.

One

One ſide of Circaſſia is full of high hills, and deep vallies, ſhaded by a number of large trees. The capital of this canton is Kabartha, from which the kan of Krimea draws his greateſt revenues in ſlaves, and every one who ſees the country allows it to be extremely beautiful. None are remarkably pitted with the ſmall pox, by the method of taking care of their children in their infancy.

There is a bey who commands in this country, under the authority of the kan, who has ſeveral officers under him, and theſe are obliged to give as a tribute to the kan three hundred ſlaves, namely, two hundred girls, and an hundred boys, who are not above twenty years old. Very often the beys give their own children, the more eaſily to induce the parents to deliver up theirs.

When the Circaſſian beys are at variance, they ſend to the kan for an aga, and ſometimes for a prince of the blood, to determine their differences; and their commiſſaries never return without rewards, ſince they make them preſents of the beſt and moſt valuable things they have; and we may ſay, that in Circaſſia they make a traffic of men and women as they do in other places of different commodities.

The Circaſſian Tartars live better than the Nogais, ſince they daily eat beef, mutton, wild fowl, and very rarely horſe fleſh. Their bread differs ſomething from that of the Nogais, ſince it is made of millet-meal, kneaded with water, of which they make a ſoft paſte, which they half bake in earthen moulds, and eat very hot.

The country is fine, and abounds with fruit-trees; and tho' uncultivated, is yet watered with charming rivulets. The air is very good and wholſome, which is no doubt the reaſon why the Circaſ-

sian women have a degree of beauty far superior to the other Tartars.

These people greatly esteem christians, and say they are descended from some Genoese, who long possessed the principal part of this great country, and shew in several places the ruins of the cities they had built. The Circassian beys are generally Mahometans, and only accept the place out of complaisance to the Tartars, with whom they have continual connexions. As for the people, they are neither christians nor mahometans, and neither use baptism nor circumcision. They have a particular language quite different from the rest of the Tartars, which, however, seems to have a great sweetness. There are no exercises of religion amongst them, but certain superstitious assemblies, which are held at stated times, beneath large trees, to which they tye wax candles, while he who is their papas or priest, makes at their head three or four turns round the tree, muttering some prayers, on which occasion they generally eat hogs flesh openly, and without reserve.

The Circassians, who are so beautiful, have for neighbours the Calmouchs, who are such monsters in nature, that when one looks at their face, he knows not of what colour to call it, nor where their eyes or noses are. As a part of these Calmouchs are tributary to the kan, and the others to the czar, they are obliged yearly at the grand bairam, to send a deputation to the kan of Krimea, wish him a happy festival, and send him their tribute, which consists in two covered chariots, one drawn by four horses, and the other by two camels, in which are two furs of sable, one for the prince, and the other for the sultana his mother, or the chief of his wives. They also give furs of the same

ſame kind to the firſt princes of the blood, whether ſons or brothers of the kan, as well as to his firſt vizir, and the mufti.

The head of the deputation is one of the principal Calmouchs, and when they are at the entrance of the iſthmus of Krimea, they give notice to the kan of their arrival. The little city built on that neck of land, which joins the Krimea to the continent, is in French called Porte-or, and in the Turkiſh language Orkapi. When the kan receives the news of their arrival at Orkapi, he ſends a courier with orders for them to enter, and money to defray their expence to the capital; after which they have an audience the ſecond day, and then the kiaia of the vizir goes to their lodgings, and conducts them to the palace with their preſents. They give them the kaftan, or robe of honour; then two kapigis-bachis taking each of them by the arm, conduct them in that manner to the apartment of the kan, where they fall proſtrate, and kiſs the hem of his garment. The kan tells them they are welcome, upon which the chief deputy aſſures him of the fidelity of the Calmouchs, and offers him their preſents. Soon after they go to the apartments of the vizir, where they are regaled with coffee, ſhirbet, and perfumes, according to the cuſtom of the Turks. The kan during their ſtay at Bagchſaray, gives them a daily ſubſiſtence of bread, meat, fowls, ſpices, butter, wood, and oats, and ſtraw for their horſes; and gives them ſuits of cloth cloaths at their audience of leave.

The kans of Tartary take the name of Guirai, on the following account. About two centuries ago, when the inhabitants of the Leſſer Tartary were ſo deeply involved in civil wars, that all their princes periſhed, except one of ten years of age,

whom a labourer called Guirai, ſaved out of compaſſion. The Tartars ſeparated into ſeveral factions, and the war became long and bloody, but being at laſt weary of it, and not being able to agree about a prince, they conſented, that if they could find one of the race of their kans, they would place him on the throne, upon which Guirai preſented the young prince, who was then eighteen years old, and was known by ſeveral indubitable marks. The Tartars obeyed him, the public peace was reſtored, and the young kan willing to ſhew his gratitude to his foſter-father, and deliverer, made him be ſent for, and aſked him what favour he deſired; upon which the labourer replied, that riches and employments were not what he wanted, that having ſtill a ſenſe of honour, he deſired he would take his name, and oblige his deſcendants to uſe it; ſince which time the Tartar princes join Guirai to the name, which they receive in circumciſion.

CHAP.

CHAP. XXXV.

The courſe of the Ganges; the opinion which the Indians have of this river; deſcription of the iſland of Ceylan; of the names of the Mogul emperors; of the famous pagod of Cachi; of Pondicheri; of St. Thomas; of Golconda; of Madura; and ſome other principal cities of the Indies.

THE Eaſt Indies are divided naturally by that chain of mountains of Gata, which extend from the extremity of the ſouth-ſea, to the moſt northern part. They begin at Cape Comorin, and terminate at Mount Ima. As the river Indus was the moſt known by ancient geographers, they have called by this name all the people who lived beyond this river, as far as the Eaſtern ſea; and becauſe Delhi has been long the reſidence of the ſovereigns, it has been looked upon as the capital of the Indies, and at this day they give the name of Indoſtan to this vaſt country, which lies between the Indus and the Ganges.

We cannot ſay in what part the Indus firſt begins. It is in the country of Cachemira, if we believe ſome Indians, but others place it higher among the mountains of Ima. It takes its courſe towards the ſouth as the Ganges; with this difference, that the Ganges inclines a little to the eaſt, and the Indus on the contrary to the weſt, and the laſt diſembogues itſelf into the Indian ſea, by ſeveral mouths.

The Ganges is the largeſt, and the moſt famous river of all Aſia, and its ſource, according to the opinion of the Indians, is celeſtial, ſince they ſay one of their gods pours it from his mouth on mount Ima; from whence paſſing over many ſtates, and directing its courſe to the ſouth, it waters many great cities, the moſt famous of which is, ſay the Indians, Cachi; then it paſſes into the kingdom of Bengal, and throws itſelf into the ſea by ſeveral mouths.

If we may believe the Indians, the Ganges is a holy river, whoſe virtue conſiſts in waſhing away ſins. Thoſe who are ſo happy as to die on its banks, are admitted into a delicious region, where they continue, till their ſouls animate other bodies; it is for this reaſon that they throw ſo many dead carcaſſes into this river; that the ſick order themſelves to be tranſported to the Ganges, and that others who are too far diſtant, carefully incloſe in urns the aſhes of burnt bodies, and ſend them to be caſt into the river.

This general eſteem which they have all over the Indies for the Ganges, is of great benefit to the prieſts, who fill bamboos with the water of it, which they fix to the two extremities of a pole ſeven or eight feet long, and, putting it on their ſhoulders, carry it all over the Indies, and ſell this ſalutary water very dear, which they pretend is not ſubject to corruption. This high idea the Indians entertain of the Ganges, ariſes from the perſuaſion they have with moſt idolaters, that great rivers are the abodes of ſome god or goddeſs; beſides, it is certain, that the Indians have heard of the terreſtrial paradiſe, of the river that watered it, and of the tree of life; and it is probable, that not knowing any finer river than the Ganges, they have attributed to it what they have heard of that river. With this know-

knowledge of the terreſtrial paradiſe, which they have received by tradition from their forefathers, they have intermixed many fables agreeable to their own taſte; for example, that the Ganges runs through a delightful garden, whoſe fruit reſtores youth to thoſe who eat of it, and adds a century to their life; ſo that whoſoever ſhould be ſo happy as at the end of each century to find ſome of this fruit on the banks of the Ganges, might be aſcertained of an immortal life. They add as a certain fact, that they have known ſome who have lived three hundred years, becauſe, ſay they, they had found ſome of this fruit at the end of each century; but not being ſo lucky as to find any at the beginning of the fourth, they inſtantly died.

After the deſcription of the Indus and Ganges, let us now proceed to the moſt remarkable places, which are on the banks of the Indus, beginning with the famous iſland of Ceylan. The king of Portugal having one day aſked an officer juſt come from the Indies, an account of this iſland, was anſwered, that it was an iſland whoſe ſurrounding ſeas were ſown with pearls, whoſe woods were cinnamon, its mountains covered with rubies, its caverns full of cryſtal; and, in a word, the place which God choſe for the terreſtrial paradiſe. This deſcription is certainly exaggerated, tho' it cannot be denied but it is the moſt beautiful iſland in the world. The Indians call it Cachi, and all the idolaters of Aſia look upon it as the abode of their gods. The famous Ramen, the chief of the Indian gods, according to them, reſided there; and the Pegouans affirm, that Anouman, a famous ape which they worſhip, accompanied Vichnou thither, who was metamorphoſed into Ramen. The Siameſe affirm, that their god Somonacodon

has left the print of one of his feet in it; and the Chineſe themſelves, who are not willing to be indebted for any thing to ſtrangers, acknowledge that one of their principal idols came from Ceylan, which is an iſland about two hundred leagues in circumference, watered by a number of fine rivers, and bleſt with plentiful harveſts.

Pondicheri is the largeſt eſtabliſhment the French have in the Indies, ſince it has a regular fortreſs, where none of the works neceſſary for a good defence are wanting. The city is ſpacious, the ſtreets parallel, and the houſes, inſtead of being built like thoſe of Europe, are but earth covered with lime; but as they compoſe ſtrait ſtreets they have an agreeable appearance. In ſome of the ſtreets are fine avenues of trees, under whoſe ſhade the weavers work thoſe fine cottons ſo much eſteemed in Europe. The difference of time betwixt the meridian of Pondicheri and Paris is five hours, and eleven or twelve minutes, which are equal to about ſeventy-eight degrees.

In going from Pondicheri to the north, following the coaſt, we ſee the city of St. Thomas, alſo called Meliapam, or to uſe the Indian name, Mailabouram; that is to ſay, the city of peacocks, becauſe the former princes of this country had a peacock for arms, and had it painted on their colours. It is probably in imitation of the emperors of Biſnagar, that the Mogul emperors place ſo beautiful and rich a peacock on the canopy of their throne, the platform of which is all covered with pearls and diamonds, and ſurrounded with a fringe of pearls. Above the canopy is a peacock, whoſe expanded tail is of ſapphires, and other precious ſtones; the body is of gold enamelled with jewels; and in a word, there is a large ruby in the middle of the breaſt, from whence hangs a

pearl

pearl in form of a pear, which weighs fifty carats.

The Indians do not ſpeak leſs pompouſly of Cachi, than of the Ganges, ſince the former, according to them, is the abode of their gods, and by conſequence, a ſacred and holy place. Ramen, and the moſt celebrated hermits, performed their penances in the woods near the Cachi; and whoever dies in ſo holy a place, has all his ſins pardoned, and goes directly to heaven; a man who has made a journey to Cachi, is reverenced upon that account, tho' he has no other merit, the want of which is ſupplied by having been there. In a word, they complain, that they have not expreſſions ſublime enough to repreſent, as they ought, the ſanctity of ſo venerable a place,

As for Cachi, which certainly is the ſame as Banares, it is one of the beſt built cities in the Indies. Almoſt all the houſes are of free-ſtone, or bricks, and there are very beautiful caravanſeras; but the ſtreets are narrow. The Ganges waſhes the walls of this city, whoſe ſituation is fine, and the country round about delightful and fertile. From the temple-gate to the Ganges are ſeveral ſtone ſtairs, with platforms between each of them. This deſcription is agreeable to that which the Indians give us of the pagod of Cachi, which proves that Banares and Cachi are the ſame.

The city now called Golconda, was formerly only a garden of a pleaſant ſituation, two leagues from the fortreſs of that name. They called it at firſt Bagnagar, and afterwards Golconda, which is very near as large as Orleans, well ſituated, and adorned with beautiful ſtreets. The river which runs thro' it, and throws itſelf into the ſea of Maſſulipatan, is broad and clear, over which they have built a magnificent bridge, and the palace is very

very ſumptuous. Since this city is become ſubject to the Mogul, it is not ſo well peopled as before; for Auren-zeb pillaged it entirely, before he took the citadel; and it is in this kingdom of Golconda, that we meet with the famous diamond mine.

Madura is the capital of the kingdom of this name, and is ſurrounded by two walls, each of which is fortified after the ancient manner, with ſeveral ſquare turrets with parapets, and furniſhed with cannon. The fortreſs, which is ſquare, is ſurrounded with a large deep ditch, a ſcarp, and counterſcarp. There are no covered ways to the ſcarp; and inſtead of a glacis there are four fine ſtreets, which front the ſides of the fortreſs. One may walk round it eaſily in two hours; and the houſes of the ſtreets have large gardens on the country's ſide, which is fine and fertile.

The inſide of the fortreſs is divided into four parts; and thoſe on the eaſt and ſouth contain the king's palace, which is a labyrinth of ſtreets, ponds, woods, halls, galleries, colonnades, and ſeveral houſes placed here and there; ſo that when we have once entered it, it is not eaſy to find the way out. When the kings of Madura reſided here, there were none in it, but women and eunuchs, and the famous Troumoulanaiken, who contributed moſt to the embelliſhments of it, had a ſeraglio in this palace, whoſe halls of audience were ſuperb and grand.

At the entrance was a great gallery, ſupported by twenty large pillars of black marble well wrought. From thence we paſſed into a ſpacious court, where we ſaw the four ſides of the building, which correſponded to the four quarters of the world. Each ſide of the building had in the midſt a very elevated dome, ornamented with works of ſculpture, and theſe domes were joined by

eight

eight galleries, whoſe angles were flanked with turrets. The plan of this palace had been drawn by an European; for we ſee in it many European ornaments mixed with Indian architecture.

In the ſecond part of the fortreſs is the temple of Chokanadon, which is the idol worſhipped at Madura. To the eaſt of the pagod are many beautiful porticos, and to the north of one of theſe is ſeen a magnificent chariot deſigned to carry the idol in triumph on his feſtival day. The pagod is ſurrounded with three walls, between each of which are many fine avenues, very ſmooth, well gravelled, and adorned on each ſide with rows of lofty trees. There are four great towers at the entrance of the principal gates of the palace, and the reſt of the ground within the fortreſs, is divided into ſeveral ſtreets, ponds, and public ſquares.

The river which runs by Madura would be beautiful, if it was not drawn off into great lakes, which drain it, and reduce it to a rivulet. Below the city there is a canal which runs from north to ſouth, and throws itſelf into five beautiful ponds on the weſt of Madura, which have other canals for conveying the water into the ditches.

To the eaſt of the fortreſs we ſee three other triumphal chariots, which are magnificent when adorned. The greateſt cannot be drawn, as the Indians ſay, but by ſeveral thouſand perſons; which is no wonder, conſidering the enormous bulk of this machine, which carries four hundred perſons at leaſt, whoſe offices are different. With large beams they form five ſtories, each of which has ſeveral galleries; and when this machine is covered with painted ſtuffs, ſilks of different colours, ſtreamers, ſtandards, umbrellos, feſtoons of flowers, repreſenting different figures; and when all this is

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ſeen in the midſt of the night, by the light of a thouſand flambeaus, it cannot be denied to be a a very agreeable ſpectacle. The drums, trumpets, hautboys, and ſeveral other inſtruments, accompany the motion of this chariot, which is ſo ſlow, that they are three days in drawing it round the fortreſs.

On the north ſide, above the fortreſs, in the ſtreet that runs eaſt and weſt, were formerly the Chriſtian churches, which were overthrown when the city was taken and ruined entirely by the king of Mayſſur.

Madura has loſt much of its ancient ſplendor, ſince the irruptions of the Mayſſurians, and ſince the laſt kings have removed their court to Trichirapali, which is a large well peopled city, and contains above three hundred thouſand inhabitants. It is the greateſt fort between cape Comorin and Golconda, ſo that numerous armies have often beſieged it, and always in vain; for which reaſon the Indians ſay it is impregnable. It has a double incloſure of walls, each fortified with ſixty ſquare turrets, diſtant from each other about eighty or a hundred paces. The ſecond incloſure is more elevated than the former; and is furniſhed with a hundred and thirty pieces of cannon, of a pretty large bore; this ſecond incloſure is ſtill divided into two fortreſſes, which are called therefore the north and ſouth; the latter of which has its internal walls lower than the other; and there is an eminence from whence they can diſcover an enemy, towards the midſt of which is the arſenal, and at the bottom the prince's palace. The inſide of this fortreſs is very agreeable, and conſiſts of a great ſquare amphitheatre, with ſtairs on all ſides to aſcend to the ramparts. Beſides the turrets on the double incloſure, there

are

are eighteen larger, wherein they lay up the proviſions and ammunition of war, which cannot be lodged in the arſenal. They renew yearly the rice proviſion; what is taken from the ſtores is given to the ſoldiers as part of their pay, and the garriſon conſiſts of about ſix thouſand men, and ſometimes more.

The ditch which ſurrounds the fortreſs is large, deep, full of water, and abounds with crocodiles. Trichirapali has four large gates, two of which are only left open, and that towards the weſt is only free to women belonging to the palace. Every night they patrole three times in the palace; the firſt with the ſound of drums and trumpets, towards the evening; the next about nine o' clock, with hautboys and other inſtruments; the third in ſilence, about midnight; and ſometimes they make a fourth about three in the morning.

The palace of Trichirapali is far from being ſo magnificent as that of Madura, and only conſiſts in a heap of halls, galleries, and chambers. The divan, or tribunal of juſtice, is ſupported by fine high pillars, contrary to the cuſtom of the Indians; and above it there is a fine platform. The gardens are very magnificent; for we ſee in them four or five little fountains, and at the entrance a great hall, open on all ſides, and ſurrounded with deep ditches, which are filled with water when the queen comes to enjoy the freſh air, on which occaſion the pillars which ſupport the hall are covered with gold, and the roof ornamented with feſtoons of flowers, and pieces of damaſk of different colours.

CHAP.

CHAP. XXXVI.

The manner of inoculating the ſmall-pox among the Chineſe; rules to be obſerved for that purpoſe; remedies uſed in this artificial pock; a particular ſecret to remove or mitigate the ſmall-pox.

WE, perhaps, ſhall not be a little ſurprized to find that a method very like that which was brought from Conſtantinople into England, ſhould have been in uſe for above a century in China. It may be aſked, whether it was in this empire that this invention had its birth, or in ſome neighbouring kingdom? If the Engliſh are to be believed, the Greeks of Conſtantinople got this ſecret from the countries adjoining to the Caſpian ſea, which might induce us to believe, that China had it from the ſame ſource, by means of the caravans of the Armenian and other merchants, who have for many years traded to China. Yet this conjecture will equally prove, that it was from China that this ſecret came to the Caſpian ſhore.

But what proves that this invention was not brought from Tartary to China is, that the Tartars have hitherto been intirely ignorant of the method of inoculating, and making thereby the ſmall-pox milder and ſafer. They look on this diſeaſe as a kind of plague; and as ſoon as any of them get it, he is abandoned by all, and has nothing to truſt to but providence and his conſtitution.

Whatever we may conjecture, none can diſallow but the Chineſe receipts about inoculation may be of great advantage; the firſt of which is as follows:

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When you have found a child from one to ſeven years of age, whoſe pock came out happily, without any malignant ſigns, who had them diſtinct, and was well on the thirteenth and fourteenth day, ſo that the ſcales of the puſtules fell off; gather up the ſcales or pellicules of the dried puſtules; put them in a China veſſel, whoſe mouth you muſt carefully cloſe with wax, by which means you may preſerve their efficacy many years, which would evaporate in one hundred days, was there the leaſt opening in the veſſel.

It is ſuppoſed that the child to be inoculated is in a good ſtate of health, and is, at leaſt, a year old. If the preſerved ſcales be ſmall, take four; if they are large two are ſufficient, and mix a grain of muſk in ſuch a manner, that the muſk may lie between the two ſcales, which preſs it; and the whole muſt be put into a piece of cotton, wrapped up in form of a tent, which is to be put into the noſe; and you muſt fill the left noſtril, if it is a boy, and the right if it is a girl.

We muſt obſerve whether the child has the frontal ſuture cloſed; for if it is not conſolidated, or the child has a flux, or any other diſorder, it is not proper to inoculate him.

When this remedy is put into the noſe, and a fever comes on, if the puſtules appear not till the third day, we may reckon, that of ten children, eight or nine will do well. But ſhould they come out the ſecond day, one half will be in great danger, and ſhould the puſtules make their appearance the firſt day of the fever, then the phyſician cannot anſwer for the life of the patient.

For what remains with reſpect to the uſe of this remedy, we muſt conduct ourſelves as in the natural ſmall-pox, and only once uſe expellent medicines,

cines, and then give the patient potions and fortifying cordials.

This recipe contains circumſtances of more importance in practice, than at firſt appears. Firſt, they chuſe the pock of the youngeſt children for the ſeed to be inoculated; becauſe they judge it is freeſt from heterogeneous malignity, and that its virus is not too ſtrong for the deſigned operation. They alſo judge that the puſtules of the diſtinct kind are better nouriſhed, of a milder quality, juſt as it happens to fruits which are left in ſmall numbers on a tree. As for the muſk it ſeems a meer vehicle; tho' as it is very ſpirituous, the morbific ſeeds with which it is mixed inſinuate more eaſily. They have probably conſidered that good muſk ſtrengthens the head and heart; and by its heat opens the pores of the veſſels; which has laid a foundation for ſaying, that being ſmelled to faſting, it cauſes bleeding at the noſe. But we now proceed to the ſecond preſcription.

To ſucceed in inoculating, we muſt chuſe the ſcales of the beſt conditioned pock. Theſe recent ſcales ſtand in need of a preparation to correct their acrimony: they cut in little ſlices the root of ſcorzonera, to which they add a little liquoriſh, which they put into a china cup full of hot water. They then cover this cup with fine gauze, over which they hold for ſome time the pocky ſcales, expoſed to the benign heat of this compoſition. After this they remove and dry them, and then they have their proper force. The ſcales that have been laid up for a month or two have no need of this preparation, ſince it is ſufficient to temper them by the gentle perſpiration of a healthy man, who carries them about with him for ſome time before they are made uſe of.

We muſt obſerve that ſcales taken from the trunk of the body, whether on the breaſt, or on the back, are the beſt; and that we muſt guard againſt uſing thoſe which are taken from the head, the face, the feet, or hands.

When we would give the ſmall-pox without inciſion, we muſt take the down of a ſilkworm's egg, and put into it a ſufficient quantity of ſcales; then put it into the left noſtril, if it be a boy, and into the right noſtril, if it be a girl, and leave it there three hours. There is another method of making a thick mixture with pulverized cruſts, by mixing them with a little warm water. They incloſe this paſte in a thin piece of cotton, which they put into the child's noſe, and leave it for ſix hours, by which means the fever will ſoon ſucceed; and on the ſixth day the marks of the ſmall-pox will begin, and the puſtules will dry, and fall at the end of twelve days. To mix theſe cruſts in water, we muſt uſe a ſtick of mulberry wood.

There are ſix caſes, in which we muſt not inoculate. 1ſt, If the child be under the age of a year. 2dly, Should it be a young man paſt ſixteen. 3dly, If the perſon has at that time any external diſorder. 4thly, If he has inwardly an ailment. 5thly, During the ſummer, and great heats, we muſt not venture. 6thly, When the pocky ſeed is not of a favourable kind.

It is probably with a great deal of reaſon that they caution us againſt inoculating in ſummer, but chuſe thoſe ſeaſons of the year when the vital ſpirits are leſs diſſipated, and more concentrated, on which occaſion nature acts better, provided ſhe is fortified againſt the external cold; which it is far more eaſy to guard againſt than it would be in ſummer, to give preciſely the degree of ſtrength requiſite.

In both theſe methods, they judge it dangerous, for the ſmall-pox to come out too ſoon; but this danger is common to them with the natural ſmall-pox. A premature effort of nature is the cauſe that her forces are never totally reunited; as it happens in demicriſes, which being reiterated, ſave not the ſick perſon as a perfect criſis does. The matter which is not prepared, being puſhed betwixt the fleſh and ſkin, cannot be there ſufficiently concocted, juſt as the aliments which fall into the ſtomach, before the firſt digeſtion has been performed in the mouth by maſtication, and that diſſolution which is effected by the ſaliva. Thus theſe acids entering into the blood, are never thoroughly expelled from it, and produce the moſt uncommon ſymptoms.

The laſt receipt comprehends the rules which we are to obſerve, in inoculating.

1ſt, It is neceſſary that the child, whom they want to inoculate, ſhould be healthy, robuſt, and free from all diſtempers.

2dly, They muſt take care, that the ſagittal ſuture be perfectly united and cloſed; wherefore care ſhould be taken in general, that children be three years old, at leaſt, before they are inoculated; and it is an experiment which ſhould not be made, when they are paſt ſeven.

3dly, The child muſt be free from internal and habitual infirmities; have, on no part of his body, either itch, impoſtume, tetters, nor even the leaſt ebullitions of blood; and, in a word, he muſt not have the ſmalleſt ſymptom of a flux.

4thly, We muſt refrain from inoculation, when a child frequently caſts his eyes on one ſide, as if he ſquinted; when he is dull of hearing, much more when he is totally deaf; when his noſtrils are ſtop'd, or when he makes water with difficulty.

5thly,

5thly, Inoculation would be an uſeleſs attempt, if the child had large eyes, without the caruncles which are ſituate in their corners, or if he had the hircus (that part of the eye next the temple) very pointed, and not round, as the generality of men have.

6thly, The ſeaſons of great heat, or exceſſive cold, would be prejudicial to this operation, as likewiſe thoſe times, when any epidemical diſtemper rages, or when the weather is irregular, either in reſpect of dryneſs, humidity, or cloudineſs.

When we have obſerved, that the child has all the neceſſary diſpoſitions, we muſt prepare him by a potion proper to diſſipate malignant humours, and purify the blood and juices; and it muſt be at leaſt ten or twelve days after the uſe of this remedy, before we undertake inoculation. The remedy is compoſed in the following manner:

We muſt take red, black, and green peas, and liquoriſh, of each an ounce, and reduce all to powder, which we muſt put into a tube of bamboo, or elder, whoſe bark is peeled off, leaving the knot on each end. We muſt fill this tube with the medicinal powder, and cloſe the two openings with wedges of fir, over which we muſt put a thick covering of wax, that the leaſt aperture may not remain at the extremities of the tube: all being thus diſpoſed during winter, we muſt hang this tube in a vault or neceſſary-houſe, where it muſt remain for fourteen months. After we have cleaned the outſide, we muſt add to one ounce of this mixture dried in the ſhade, three mas (a mas is the tenth part of an ounce) of the flower mæiſte, which is a wild apricot, that flowers in winter; and there are ſome of them which have only flowers, but we muſt not with our fingers gather

theſe leaves, when they are fallen upon the ſnow; but muſt take them up on the point of a needle, lay them on paper, and expoſe them to the heat of a clear fire to dry them entirely; and when they are ſo, they muſt be reduced to a very fine powder, and mix'd with the other powder, which is to be exhibited in the following manner: The doſe is a mas, or half a mas, in proportion to the child's age; and they muſt dilute this powder in a potion of water, wherein they boil the creeping ſtalks of the long, ſlender, and downy gourd; and when theſe ſtalks cannot be had, we may in their ſtead uſe the flowers of xirinhoa.

When they give this remedy, all food muſt be forbidden, that is of too pungent and acrimonious a taſte or ſmell. Ten or twelve days after we may inoculate; and for this purpoſe, muſt chuſe in a good ſeaſon, a young, robuſt child, who has a pock that is well conditioned, and not too cloſe, we muſt collect the thickeſt ſcales of theſe puſtules, and ſhut them up cloſe in a veſſel, ſo that the ſpirits may not evaporate, after which precaution, they may ſerve during a whole year, without loſing their efficacy.

When we would inoculate the ſmall-pox, we muſt take five or ſix of theſe ſcales; tho' if the child is a little advanced in age, we join two grains of hiunghoang, and pounding them together, wrap them up in a piece of cotton, which is to be put into the noſe of the child, and left two or three days; after which the ſmall-pox will break out; but if the child is very young, two or three ſcales are ſufficient; and we muſt proportionably retrench the quantity of muſk, and hiunghoang. The ſecond day after inoculation, they make the child take a doſe of two or three pulverized ſcales, which are to be put into a broth of chinma, which

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is ſo called becauſe the chinma prevails; but it is not the only ingredient, ſince with the ſcales they alſo boil kotem, choyo, and liquorice. When this potion, which muſt be a pretty large doſe, is ready to boil, they throw into it the powder of two or three ſcales. After which they wait for the effect of the remedy; and if, after the third day, we ſee the marks of the ſmall-pox, it is a good omen.

Should the ſmall-pox appear on the ſecond day, there is danger; and this danger would be greater, ſhould they appear the firſt day. This is what they ſay; but we need not be diſcouraged, ſince by obſerving the method which we preſcribe, and taking the remedy which diſſipates the malignity of the humours, there will be no great fear of the accidents and ſymptoms above mentioned. We muſt then have recourſe to the remedies, which they employ for the natural ſmall-pox, when they are dangerous.

In a word, they deſire, that if, after the uſe of theſe remedies the ſmall-pox does not appear, neither on the fourth nor fifth day, we muſt remove the powders put into the noſe of the child, and have recourſe again to the remedies preſcribed for abating the malignity of the venom. By this precaution they affirm, that the child will afterwards be proof againſt the ſmall-pox. We muſt only in the fourth and fifth moon give this medicine for ſome days ſucceſſively, and the child will be freed from danger after he is ten years old.

The Chineſe phyſicians agree, that artificial ſmall-pox are of the ſame kind with the natural; that they are ſubject to the ſame ſymptoms; that the venom comes out at the ſame time; that is, on the third or fourth day, and not on the ſeventh, as it happens in purple fevers; that the puſtules are

ſimilar in figure, the quality of the matter, and in the time requiſite for its maturation. They do not, like ſome of the authors who have wrote on the Greek method of inoculation, affirm, that the artificial puſtules are not proper for ſeed, and the propagation of other pox; and it is for this reaſon, that phyſicians do not chuſe to inoculate thoſe, who would inevitably be in danger from the natural pox, ſuch as perſons conſiderably advanced in years.

We muſt, no doubt, have obſerved, that the Chineſe are very circumſpect in uſing expellent remedies, for fear of diſturbing nature, which is in a kind of criſis during the firſt days of the morbific fermentation; and the principal care ought to conſiſt in uſing remedies which reſiſt the corruption of the blood, which would otherwiſe be produced by the too great activity of the introduced virus. It is alſo to be obſerved, that they adviſe us to uſe, according to the neceſſities of the artificial, all the remedies uſed in the courſe of the natural ſmall-pox.

The ſame author gives us the two following receipts, which the Chineſe ſay are not only proper to prevent the troubleſome ſymptoms of the ſmall-pox, but likewiſe to preſerve us from them all our lives; and theſe receipts ſerve to illuſtrate what was ſaid in the laſt paragraph upon the artificial pox.

When the ſmall-pox begin to ſpread in a place, regulate the eating and drinking of the children, let them not go abroad, take care that they be conveniently clothed, and give them ſome gentle preſervatives.

Take, ſays he, a cup of red, one of black, and another of green peas, with two ounces of liquorice, which you muſt reduce to fine powder, and then put theſe four ingredients into an earthen pot,

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and boil them till they form a kind of paſte, which you muſt make the child eat. The red peas drive from the heart all the peccant matter, the black are good againſt the malignity of the kidnies, and the green againſt that of the ſtomach.

Other phyſicians, as well as the laſt mentioned, highly extol the following recipe.

Take, ſay they, ſeven eggs of a hen that is ready to ſit: Take one of them, pierce it to make the white and yolk flow out; then fill it with four mas and nine condorins of very fine tchucha, a kind of cinabar, (an ounce contains ten mas, and the mas ten condorins) paſte paper on the hole, and ſtop it well up. You muſt put this egg under the hen, to be ſat on with the ſix others. When the others are hatched you muſt take away the medicinal egg, from which you muſt take out the tchucha, which you muſt expoſe to a clear ſun and moon during ſeven or eight days and nights; beſides, you muſt take the beſt and ripeſt gourd, and dry it, and when you have burnt it, without calcination, you muſt reduce it to powder; for each doſe mix five condorins of tchucha, and as much of gourd powder, with a ſufficient quantity of pure honey, which medicine muſt be taken three times ſucceſſively, and is an excellent preſervative.

They likewiſe uſe another remedy as agreeable to the palate, as proper to prevent and remove the diſorder, and this is the frequent uſe of Corinthian grapes, which the Chineſe call ſoſo poutao.

Perhaps the Chineſe method of procuring the ſmall-pox is milder and ſafer than that of England, which is performed by way of inſertion. The latter immediately conveys the virus to the maſs of blood, whereas in the Chineſe practice, ſubtile ſpirits, and thoſe tempered, or aſſiſted,

inſinuate themſelves by the olfactory nerves, or ſuch as digeſtion prepares in different paſſages. The pocky virus has without doubt a kind of malignity; but whether it be cold or hot, thick or ſubtile, it muſt be more dangerous when it is inſerted into the fleſh than when it is inſinuated by reſpiration, or deglutition. The venom of vipers or toads, ſwallow'd or ſmelt at a long time, does not hurt at all, or at leaſt much leſs than if it was introduced by inciſion, ſince every one knows that the ſlighteſt bite of a ſerpent proves mortal.

In the management of thoſe in whom we produce the ſmall-pox, we muſt have recourſe to the method obſerved in the natural pox. Except in veneſection, which is not uſed among the Chineſe, there is a great analogy betwixt their method and that of the Europeans.

The reader will not perhaps be diſpleaſed, that in the excretion of the ſmall-pox, they uſe peas, or little beans. There is a probability that they uſe them to temper the too great acrimony of the blood and humours; and what confirms this is, that the Chineſe phyſicians, when the fever continues without the appearance of the ſmall-pox, put in their common remedies a little opium, which has the virtue of uniting the ſpirits, and giving them the ſtrength of expelling the venom.

We muſt obſerve that the Chineſe authors who treat of the ſmall-pox, ſpeak of it as a diſtemper known in the earlieſt ages, ſince, notwithſtanding the ſilence of Hippocrates and Galen, we cannot doubt of its antiquity. When they inveſtigate the cauſe of ſo common and ſo univerſal a diſorder, they pretend that the infant brings the principles of it with him into the world from the mother's womb, which occaſional cauſes augment, retard, or intirely deſtroy. But how can it happen that

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the ſmall portion of matter which cauſes the ſmall-pox, and which commonly the firſt time one is infected, is exhauſted intirely, and ſecures us from a ſecond attack, notwithſtanding external cauſes, and our approaching ſuch as are covered with them, ſhould remain ſo many years in the maſs of blood, or in any other parts, and this in youth, which is ſuſceptible of the ſlighteſt impreſſions; that in proceſs of time this matter is neither attenuated nor diſſipated, even after burning fevers, and violent criſes, which muſt have renewed the humours, the alcalies, the acids, the ſulphurs of the blood, and all the principles of life and health, from whence ariſes, as it were, a new conſtitution? Nothing is found in the Chineſe writers which has the leaſt tendency to illuſtrate this difficulty.

However, what we have ſaid touching the Chineſe method of procuring the ſmall-pox, ſhews ſufficiently that the knowledge of diſtempers and their remedies have not been ſo neglected in China as ſome in Europe perhaps imagine.

We now proceed to give an explication of the different drugs in the preceding receipts, which cannot be better known than by a Chineſe treatiſe, of which the following is a faithful tranſlation.

The plant chirma buds in the ſpring, and riſes three or four feet high. Its leaves, which are of an obſcure black, reſemble thoſe of that hemp which is called tchama, and a kind of flax called hongma.

In the fourth or fifth moon, and at the end of the ſixth, the plant produces a black ſeed, and its root is like that of hao, which is a kind of wormwood; it is blackiſh, and the only part employed in medicine. As its virtue is ſudorific, they think it good againſt poiſon, the corruption of

of the air, the external incommodities produced by heat or cold, and in general againſt all kinds of impoſtumes.

Koken, that is to ſay, the root of the ko, is the external pellicule of this creeping plant, which is taken off in long ſhreds, and ſerves to make the ſtuff kopon. The root is medicinal, and they make uſe of it to cure calentures, violent head aches, and great colds; in order to procure ſweats, to reſiſt poiſon, and generally for all kinds of diſtempers cauſed in children, by an exceſſive heat of the blood.

Tchi-tiao-teou, are little crimſon peas, the green and black are ſufficiently known, and the red or crimſon ones are ſown after the ſummer ſolſtice. Their leaves and flowers are intirely like thoſe of kia-teou, that is to ſay, peas with ſtrait cods, and about a foot long. Theſe tchi-teou have an external covering like green peas, but ſomething larger. They eat them either boil'd in water, fry'd, or reduc'd to a kind of broth: they alſo uſe them in medicine, and chuſe the ſmalleſt, which are of a faint crimſon. They diſſipate the dropſy, diſſolve impoſtumes, and extravaſated blood, and are of great uſe in contagious diſtempers.

The root of choyo, or piony, is uſed againſt impurities of the blood, or diſtempers produced by a redundancy of humours, and is alſo thought proper to diſſipate either cloſe or open cancers, to ſtop dyſenteries, or teneſmuſes, and to cure the inconveniencies which precede or follow child-birth.

Kin-in-hoao, a gilded or ſilver'd flower, is the honey-ſuckle, which is found every where. The plant which bears this flower, does not wither in winter; they therefore call it gimtomtem, the plant that bears winter. It attaches itſelf to the

the neighbouring trees, and begins to twiſt itſelf on the left ſide of the trunk. The ſtem is ſomething of a violet colour. The leaves come out from each knot, and are downy, and ſharp. The flowers which blow the third or fourth moon, are a finger's breadth, fix'd by twos to the ſame pedeſtal, and each conſiſting of two leaves, the one greater and the other leſs; they are at firſt white; after two or three months they become yellow; and as theſe white and yellow flowers cauſe an agreeable variety, as they come out ſooner or later, they call them golden and ſilver flowers. They uſe them with ſucceſs in abceſſes, cancers, ulcers, impoſtumes, when the blood is heated: in ſhort, to reſiſt every kind of poiſon, and internal malignity.

Tchucha is a kind of mineral, perhaps the cinnabar of Diaſcorides, ſo rarely to be met with. The beſt comes from the city of Chienteou, in the province of Houquang, where it is found in the mines, and is full of mercury. They affirm likewiſe, that from a pound of tchucha they can extract half a pound of mercury; but the tchucha is too expenſive for this purpoſe. The large pieces are dear, and when kept long loſe nothing of their ſtrength and colour. It is ranked amongſt internal remedies, and for this end reduced to a fine powder; and in the lotion they take nothing but what the water, when agitated, raiſes up and ſupports. It is an excellent cordial, which reſtores the ſpirits, and all the parts to a ſtate of health and vigour. They uſe it in ſummer, to make a cooling drink, and it is particularly aſſiſting in the convulſions, and other diſorders of children.

Hiung-hoang, another mineral, is a ſpecies of orpiment, furniſhed by all thoſe mines wherein there is ſulphur, lead, iron, or other metals. The coarſeſt,

coarſeſt, which they never uſe, contains pieces of iron and gravel. The lump, which is cut into large parts, ſometimes, tho' very rarely, contains a diamond. In phyſick they uſe the moſt tranſparent hiung-hoang againſt the bites of ſerpents and other venomous inſects; and have recourſe to it in malignant diſtempers, as well as epidemical, either to cure or preſerve themſelves.

CHAP. XXXVII.

Singularities of the Tartar language; the great variety of terms in this tongue; four different ways of writing it; the Tartar characters legible in every direction.

THE Tartar language compared with the French, has this particular, that if, for example, they uſe the verb faire, it muſt be changed almoſt as often as the ſubſtantive that follows it. They ſay faire un maïſon, faire un ouvrage, des vers, faire un tableau, un ſtatue, faire un perſonage, faire le modeſte, faire croire, &c. This phraſiology is commodious, and burdens not the memory; but it is what the Tartars cannot bear, ſince they have different verbs as often as the ſubſtantives governed by the verb faire are different from each other; and when one fails of this, it is pardoned in common converſation; but never in a ſet diſcourſe, or even in common writing.

The return of the ſame word in the compaſs of two lines is inſupportable; and to their ears produces ſuch a monotony, as is contrary to the harmony of ſtyle; wherefore they are apt to laugh when

when they hear a French book read, on account of the frequent repetition of the words, que, qu'ils, qu'eux, quand, qu'on, quoi, quelque fois, &c. The frequent repetition of theſe pronouns diſpleaſes them greatly; and it is in vain to tell them, ſuch is the genius of the French tongue, to which they cannot accuſtom themſelves. The Tartars avoid this very carefully, ſince the poſition of terms alone ſupplies its place among them, without ever producing ambiguities, equivocations, a gingle of words, or unnatural alluſions.

Another ſingularity in the Tartar language is the vaſt quantity of terms, which it has abbreviated; for it never needs thoſe periphraſes, or circumlocutions, which lengthen out a diſcourſe, ſince ſhort nervous words expreſs with clearneſs what without their means could not be expreſſed but by a multiplicity of ſounds, as is eaſily obſerved in their ſpeaking of domeſtic or wild animals, of terreſtrial or aquatic fools. When we want to give an exact deſcription in our language, how many periphraſes muſt we neceſſarily uſe for want of terms proper to ſignify what we mean. But it is not thus among the Tartars, as will be obvious from the example of a dog, which, of all domeſtic animals, has the feweſt terms in their language, which however abounds with a great many more than ours. Beſides the common appellations of great and little dogs, of maſtiffs, grey-hounds, ſpaniels, &c. they have ſome words which denote their age, their hair, and their good or bad qualities. Thus would you ſay, a dog has the hair of his ears and his tail very long and thick, the word taiha ſupplies all; and if a dog has his ſnout thick and long, with hanging lips, the ſingle word yolò expreſſes the whole. If this dog ſhould couple with an ordinary bitch, which has none of theſe qualities, the whelp

whelp is called peseri. If any dog or bitch has above the eye-brows two tufts of white or yellow hair, we need only say tourbe; and if he is marked like a leopard, it is couri. If he has only the snout marked, and the rest of an uniform colour, then he is called palta. If he has some hairs upon his head falling backwards, he is called kalia. If his eye is half white and half blue, he is then called tchikiri. If he is of a low size, the legs short, the body thick, the head upright, he is then capari, &c. Indagon is the general name of a dog; nieguen that of a bitch. The young are called niha till seven months old; after that, to eleven months nouquere; and at sixteen months they take the generical name of indagon. The same is observed in regard to their good and bad qualities, two or three of which are expressed by one word.

It would be tedious to speak of other animals, and especially of horses, since the Tartars, from their great regard to this animal, so useful to them, have multiplied names in his favour, to such a degree, as to give him twenty times more than the dog. They have not only proper words for his different colours, his age and qualities, but also for his several dispositions; whether, when tied to a place he cannot stand still; whether he gets loose of himself, runs wildly about, and is fond of being in company with other horses; whether he is frighted at the fall of his rider, or the sudden appearance of a wild beast; or when he is mounted, how many paces he is master of, and how many different jolts he gives his rider. For all these, and many other qualities, the Tartars have appropriated particular terms.

Whether this variety of words is good, bad, or useless, we shall not pretend to determine; it is cer-

certain, that if it loads the memory of thoſe who learn it, it is a great advantage to them in converſation, and is abſolutely neceſſary in compoſition, ſince without this multiplicity of names for all the external and internal parts of animals, we could never tranſlate any of their books which deſcribe them.

As for what remains, the Tartar language wants none of the terms neceſſary for the deſcription of the human body; but it ſeems not eaſy to gueſs from what neighbours they could have borrowed them. They have to the weſt the Mogul-Tartars; and in theſe two languages there are not above ſeven or eight ſimilar words; neither can it be ſaid from whom theſe names originally came. To the eaſt there are found certain little nations near the ſea, who live as ſavages, and whoſe language they as little underſtand as they do the language of the northern people. To the ſouth they have the Coreans, whoſe tongue and alphabet, which are Chineſe, have no affinity with the language or characters of the Tartars.

After the conqueſt of the Chineſe empire, the Mantcheou Tartars were afraid leſt their language ſhould be impoveriſhed, or rather entirely loſt by the oblivion of their terms, and the mixture of the Chineſe language with their own; for theſe two tongues are incapable of being united. The old Tartars died by degrees in China, and their children learned more eaſily the language of the conquered country than that of their fathers, becauſe the mothers and domeſtics were almoſt all Chineſe. To remedy this inconveniency, under the firſt emperor Chuntchi, who reigned but eighteen years and ſome months, they began to tranſlate the claſſical books of China, and make dictionaries of words ranged alphabetically: but as theſe explications

cations and characters were not Chineſe, and the Chineſe language could not expreſs the ſounds and words of the Tartar tongue, this labour was very uſeleſs.

It was for this reaſon that the emperor Canghi, in the beginning of his reign, erected a college, or ſociety of the moſt ſkilful men in the two languages of Tartary and China, ordered ſome to tranſlate the hiſtory and claſſical books, which are not finiſhed, and others to tranſlate pieces of eloquence; and the greateſt to compoſe a dictionary of the Tartar language.

Tho' the Tartars have but one kind of characters, yet they write them four ways, the firſt of which is that reſembling ſuch as are grav'd on wood or ſtone; and as this is the moſt reſpectful manner of writing, the books preſented to the emperor, are all done in this manner; ſo that the perſon employed in this work cannot write above twenty or twenty-five lines a day; and if any application of the pencil, by too heavy a hand, forms a ſtroke thicker or broader than it ſhould be; if, by the defect of the paper, it is not clean, if the words be too cloſe, or at unequal diſtances, or if any one of them is left out, in ſuch a caſe the writer muſt begin again. It is not permitted to uſe references, nor ſupply the defects in the margin, neither is it allowable to begin a line by a ſyllable, which could not be contained in the foregoing; for which reaſon, writers muſt be very cautious, and careful to meaſure their ſpace, that theſe inconveniencies may never happen.

The ſecond manner of their writing, tho' very beautiful, and not very different from the former, is yet leſs troubleſome. 'Tis not neceſſary to form with double ſtrokes the final letters of each word, nor to re-touch ſuch as are made, either becauſe the

the ſtroke is fainter in one place than another, or becauſe it is a little blotted.

The third manner of writing differs more from the ſecond than the ſecond from the firſt. This is their running hand, which is ſo expeditious, that the writer can ſoon fill with it, both ſides of a leaf. As the pencil preſerves the ink better than our pens, little time is loſt by dipping it in the ink; ſo that when they dictate to an amanuenſis, we ſee his pencil run on the paper with an incredible rapidity, without ſtopping a moment; and this is the uſual character for writing the regiſters of tribunals, law-ſuits, and other proceedings; but tho' theſe three methods of writing are equally legible, yet ſome of them are leſs beautiful than others.

Tho' the fourth method is the coarſeſt of all; it is the ſhorteſt and moſt commodious for thoſe who compoſe, or take down the minutes, or extracts of a book. In the Tartar writing there is always a principal line, which falls perpendicularly from the top of the word, to the bottom, and on the left of the line, they add like ſo many teeth of a ſaw, the vowels a, e, i, o, diſtinguiſhed from each other by points placed on the right of this perpendicular. If they put a point oppoſite to a tooth, it is the vowel e; if they omit this, it is the vowel a; if they place a point to the left of the word near the tooth, this word ſtands for the letter n, and muſt be read ne; but if there was a point oppoſite to it on the right, you muſt read na. Beſides, if on the right of the word there is inſtead of a point, an o, this is a ſign that the vowel is aſpirated, and muſt be read, ha, he, as in the Spaniſh.

Now a man who would expreſs himſelf politely in the Tartar language, does not readily find the words he wants, but is perplexed and uneaſy, and

when once he is brought to a good humour, and wants to commit his thoughts to paper, if poſſible, without writing them, he then forms the head of the character, and draws the perpendicular to the bottom; and it is much if he puts one or two points, but continues thus, till he has expreſſed his thought. If another thought comes into his head, he does not give himſelf the trouble of reading over what he has written, till he comes to a difficult tranſition, in which caſe, he ſtops ſhort, examines his perpendiculars, and adds ſome ſtrokes in the places, where none but himſelf could gueſs at his meaning.

If in reading he perceives that he has omitted a word, he adds it on the margin, making a mark, where it ought to be inſerted; but if there is a word too much, or ill placed, he does not eraze it, but incloſes it with a large daſh: in a word, if he obſerves that the word is good, or is told ſo by others, he adds on each ſide two oo, which denotes to the reader, that ſuch a word ſtands. This laſt manner of writing is legible, eſpecially when we are well acquainted with the ſubject, and are habituated to the language.

Tho' they commonly uſe a pencil for writing, there are Tartars who uſe a kind of bamboo, cut very like an European pen: but becauſe the Chineſe paper is without alum, and very thin, a Chineſe pencil is more commodious than a pen. Yet if they write with a pen, or make uſe of one to paint in the Chineſe faſhion, flowers, trees, or mountains, they muſt firſt moiſten the paper with water wherein is diſſolved a little alum, to hinder the ink from ſinking.

A remark not to be omitted is, that the Tartar characters are of ſuch a nature, that one may equally read them inverted, that is to ſay, that if

a Tartar preſent you a book open, in the common poſition, and if you read it ſlowly, he who only ſees the inverted letters, will read quicker than you, and anticipate you, when you heſitate, whence it happens that it is impoſſible to write in the Tartar language ſo as to conceal what is written from thoſe in the ſame room, eſpecially if the characters are large.

We ſhall finiſh this chapter by ſome obſervations on the Tartar language. 1. They cannot join two conſonants, whence it happens, that the Tartars cannot write the European languages; ſince inſtead of the French words prendre, platine, griffon, friand, they would write, perendee, palatine, feriand, gerifon, &c. becauſe they are obliged to place a vowel betwixt two conſonants.

2. Their alphabet is defective in this, that they want the two initial conſonants B and D, for which reaſon, they cannot begin any Words with theſe letters, but are obliged to ſubſtitute the P or the S, ſo that inſtead of writting beſtia, dens, they write peſtia, ſens. Whence it proceeds, that there are an infinity of European ſounds, which they cannot write, tho' they can pronounce them.

3. They pronounce and write the vowel e always broad, and never uſe the e mute, but at the end of ſome words, which end in n: but they have no ſign for this.

4. The Tartar language is very unfit for a conciſe and pointed ſtile, upon account of the redundance of long words, which makes it uſeleſs for poetry, becauſe the eliſions and rhime are inconſiſtent with this language: thus none of the Tartars ever attempted to give us any other than proſe tranſlations of the Chineſe poets.

In the Tartar language, there are few tranſitions, and thoſe ſo delicate, and difficult to comprehend,

that they perplex the moſt ſagacious. We ſometimes ſee a Tartar hold his pencil a long time in the air, before he proceeds from one ſentence to another; and after having pauſed, he is obliged to blot out what he has written; when they are aſked the reaſon, they give none but this; that ſounds ill, that is harſh, this is not current language, there is need of another connexion, &c. but what proves that theſe tranſitions are but few in this language is, that thoſe who are not perfectly maſters of it, generally lengthen the final letters, by adding the word yala, which ſignifies nothing. If in a converſation they only repeat this word, once or twice, they think they ought to be eſteemed for it. But in a compoſition of an elegant nature, the Tartars dare not uſe it, eſpecially ſince the emperor has diſapproved of it; but the authors, who would avoid it, find themſelves puzzled, when they are to paſs from one ſubject to another.

CHAP. XXXVIII.

Of the province of Sirvan, or antient Albania; the extent of this province; fertility of the ſoil, the fruits, plants and flowers, which grow there; the particular manner of cultivating the lands, and getting in their harveſt; deſcription of Chamake, Derbent and Bakou.

THE province which at this day is called Sirvan, is the ancient Albania, bounded on the north by mount Caucaſus, now called the King's mount; on the eaſt by the Caſpian ſea; on the ſouth

ſouth by the river of Cyrus, above its union with the Araxes, and by a river, which diſembogues itſelf into the Cyrus, called by ancient geographers Azaron, on that ſide of Sirvan which borders on Georgia. It is about thirty leagues from north to ſouth, as broad from eaſt to weſt, and contains but three cities, Chamake, Derbent, and Bakou; the reſt are but villages, of which there are about ſixty inhabited by Armenians.

Strabo, Pliny, and Ptolomy agree that Albania is ſituated betwixt mount Caucaſus, the Caſpian ſea, and the river Cyrus, and theſe boundaries have not been changed ſince their time; but they do not agree in other particulars.

Ptolomy ſuppoſes a great diſtance betwixt the mouths of Cyrus and Araxes. Plutarch in the life of Pompey is uncertain, whether theſe two rivers fall into the ſea by the ſame mouth, or whether they do not fall ſeparately, near to each other. Pliny ſays, that according to the moſt common opinion, Cyrus carries with it the Araxes, twenty leagues before it falls into the ſea; and it is true that the Araxes loſes its name, about twenty leagues from the ſea.

According to Pliny, Albania was watered with ſeveral rivers, which diſembogued into the Caſpian ſea, among others, with the Cyrus, Cambyſes, Albanus, Caſius, and Gernus, the four laſt of which are not to be found at preſent, unleſs they are reduc'd to rivulets.

The Pirſahade is the only river in Sirvan, runs above Chamake, and has a large channel which is only fill'd by the melting of the ſnow. This river has been divided into three branches, one of which flowed near the city garden, tho' all three furniſh'd but a little water.

Ptolomy reckons up a great number of cities in Albania, and in the province of Capulaca, which Pliny thinks was the capital, and gave its name to the province.

But we muſt ſay of thoſe cities what Ptolomy ſaid of the rivers; for if theſe cities ever ſubſiſted, they are now no more.

Strabo appears more to be believ'd than Pliny, when he ſays that the Aſiatic Albanians liv'd in the manner of the Nomades, without towns or fix'd habitations, employing themſelves ſolely in breeding and feeding cattle.

Sirvan is a province of Perſia, of which Chamake is the capital, and the reſidence of the kan, the Perſian name for a governor. Derbent and Bakou are two ſmall ſeparate ſtates, under princes ſtil'd ſultans, who are vaſſals of the king of Perſia. Derbent ſhuts up the entry of Albania on the north, takes up about a league from Caucaſus to the ſea, and is probably what Ptolomy calls the gates of Albania. Strabo talks of a wall built near this place to prevent the irruption of ſavage people who liv'd beyond it, and this long wall, where ruins are yet ſeen on the mountain, and which the inhabitants ſay reach'd the Euxin ſea, may have been what Ptolomy calls the gates of Albania.

The inhabitants boaſt of having Alexander for the founder of their city, and maintain that this is the Alexandria which that conqueror built near Caucaſus. Quintus Curtius and Arrian report, that the Macedonians, to flatter Alexander, took away the name Caucaſus from the Scythians, and that Alexander near this mountain built a city, to which he gave his own name.

But it is certain Alexander never enter'd Albania, which was cover'd by that part of Media

which

which Atropatos preſerv'd from his rapid conqueſts. Atropatos was a lieutenant of Darius, and that part of Media which he preſerv'd was call'd Atropatenian Media, of which he always continu'd maſter, and in the time of Strabo, his ſucceſſors were ſtill in poſſeſſion of it. This part of Media is what is called at this day Guylan.

Derbent is ſituated on the declivity of the mountain, and defended by a caſtle built a little above it, where the ſultan reſides. The plain down to the ſea retains the name of the Grecian city, and we only ſee a few ruins in the plow'd lands.

It is alſo obſerv'd, that Derbent is not what was called the gates of Caucaſus, which according to Pliny were oppoſite to Harmaſtis, the capital of Iberia. Theſe gates were a great work of nature, for we ſee, ſays Pliny, the mountains naturally ſeparated to form a paſſage betwixt them, but the people who inhabit on this ſide the paſſage, dreading the irruptions of a numerous people who liv'd beyond it, clos'd this entrance with bars of iron as thick as beams, under which flow'd the river Yrodonis. Not content with this defence, they built upon the rock a caſtle call'd Camania, which ſecur'd them from their enemies.

Strabo, who exactly deſcribes four ways of entering into Iberia, ſays nothing that ſeems to have the leaſt relation with theſe memorable gates, but perhaps they were not made in his time. Towards the north, adds he, and on the ſide of the Nomades, three days are requiſite to aſcend the mountain, and then deſcend into a narrow paſſage where the river Aragus flows. The extremities of this paſſage are fortified with a good wall on the ſide of Albania, and there is a way formerly cut out of the rock, and a marſh to be paſſed on the ſide of Armenia. This is a neck or ſtrait,

where the Araxegus falls into the Cyrus. Above the junction of theſe rivers, and upon the mountains, are the cities of Harmozica, Saumara, or Subamara; the firſt near the Cyrus, and the other near the Aragus. It was thro' this paſſage that Pompey, and afterwards Canidus, paſſed into Iberia.

Bakou is fifteen leagues above the mouth of the Cyrus, upon the ſhore of the Caſpian ſea, to which this gives its name; for it is often called the ſea of Bakou.

The adjacent country is of a light ſoil, and abounding with ſaffron, but its principal riches conſiſt in its mines, which are wells, from which they draw naphtha in ſuch abundance, and with ſo much profit, that they aſſure us, the king's revenues from it, amount yearly to ten thouſand tomans, or ſix hundred thouſand abaſſis; each abaſſis is worth about twenty pence, and each toman about four pounds

The naphtha, which is a kind of oil, riſes with the water, from which they ſeparate it, and draw it off by pipes; there is a black and a white ſpecies of it, and the latter being eſteem'd the beſt and propereſt for ſale, is tranſported to foreign countries, whereas the former is conſumed at home in ſuch plenty, that they burn it in lamps, and put wicks into it as thick as the thumb.

Sirvan agrees with the elogium Strabo gives of Albania; for the air is wholſome and temperate. The neighbouring mountains covered with ſnow, and the ſea breezes, moderate the heat; beſides, the whole country is unequal and mountainous, which contributes to keep the air in motion, and conſequently to purify and cool it. The winters are commonly more moiſt than cold, and the ſnows which fall there do not lye long on the ground.

Fine

Fine weather, rain, and ſnow have their regular ſeaſons according to the neceſſities of the climate; ſo that if all the years be not equally plentiful, none are abſolutely barren, or inſufficient to ſupport the inhabitants, who often neglect part of their harveſt.

The lands are ſo good that they have no need of manuring, but are only left fallow for a year or two, and in ſpring they give them the firſt opening. The huſbandman always puts in the plough five pair of oxen, whoſe yoke is as long again as thoſe of Europe, but of lighter wood. The labourer ſits upon the yoke of the two firſt oxen, and regulates their motions. The plough has but one ſmall ſide wheel, and the plough ſhare enters no further than is neceſſary to turn up the clods fill'd with the roots of graſs and weeds, which have ſprung up during its lying fallow. Theſe clods remain all ſummer thus expos'd to the rays of the ſun, which reduce them to a very light earth.

The ſecond ploughing is in autumn, in which they likewiſe employ five pair of oxen, with this difference, that each pair draws a particular plough, and theſe five ploughs make five furrows, which perpendicularly cut thoſe made in the ſpring. The ploughs are follow'd by a man, who ſows the ſeed mix'd with earth, that too much of it may not fall in one place; and at the time of the harveſt the reapers cover their bodies with ſheep-ſkins, to ſave themſelves from the ſtings of gnats. Without ſtooping they cut the ſtraw about a foot beneath the ears, which they carry away on a ſledge, and tread out the corn with horſes; but the fifth part of the corn is for the owner of the land, and the reſt for the husbandman. This corn is very beautiful, and makes fine bread, tho' they uſe no ſieves, nor ſeparate the bran from the corn.

The

The great quantity of ſtraw which remains on the ground after harveſt is not uſeleſs, ſince they either cut it at the end of autumn for fuel, or for food for their cattle, or elſe ſet fire to it to burn the rats, which are ſo very numerous, and cauſe ſuch a ravage, that without the plentiful rains which regularly fall, they would be oblig'd to abandon their country.

A part of the tillage is manag'd by a kind of Tartars call'd Turquemis, becauſe they are of the Turkiſh ſect. They live in tents, which they erect in the winter in the plains, and in ſummer on the tops of the mountains. The greateſt part of the inhabitants of this province were formerly tranſported to the other extremity of Perſia, which lies in the mountains betwixt Belk-kaboul, and Candahar, where they have preſerved their ancient name, and are call'd with very little change, Akvans. But the ſavageneſs of the place has perverted their natures; for they are become robbers, and are formidable to the caravans which travel into the Indies.

The vines, without cultivation, bear excellent grapes, of which they might make excellent wines did they not at the vintage mix them with about a tenth part of water. The black grape is of two kinds, the one very little, the other very large; the white is without ſtones, and has the reliſh of muſcatel. There is not in all Sirvan either a vault or cellar, ſo that they bury their veſſels in the garden or court, draw their wine as they do water, and when a veſſel is empty, they content themſelves with waſhing it, without removing it from its place.

The fruit-trees, which are of all kinds, grow promiſcuouſly in the mountains and foreſts as well as in the plains, and their fruit is as good as can be

be expected from uncultivated trees; for the inhabitants of Sirvan are ignorant of the art of grafting and inoculating. They have almoſt all the fruits found in Europe; but the wood uſed by carpenters, and for fuel, is only to be had in the mountains, from whence they are obliged to bring it.

Pulſes are here very plentiful, as well as fruits; there are melons, cucumbers, aſparagus, and, in general, all kitchen herbs and roots found in Europe; but it ſeems as if nature deſigned Sirvan for the ſaffron country, eſpecially about Bakou, where the ſoil is extremely light. They do not ſell ſaffron pure, but mix it in a pan with a little wax, and then cut it out in ſmall cakes.

All the country is covered with odoriferous herbs, ſuch as thyme, marjoram, balm with yellow flowers, from which they draw an excellent cordial.

Among thoſe different plants, there is a remarkable one which grows on the ſides of the mountain Pidrakou, about three quarters of a league from Chamake. Its ſtem is very high, and as thick as a man's leg; it ſpreads at the top, as wide as a ſmall wind-mill, and diffuſes a very agreeable ſmell, but dries up in autumn, and revives in the ſpring.

The fields are adorned with a thouſand flowers, and their tulips are very fine; ſome being yellow and ſmall, and others red and large, which have a black yellow ground; and if theſe colours were mixed in the leaves, it would be the fineſt flower in the world. It is ſeen every where, not only in tilled or corn fields, but even in the high-ways; and roſe and caper trees grow ſpontaneouſly in the foreſts, and among the cops.

The

The lands which are untilled, nouriſh innumerable herds of cattle and flocks of ſheep. Oxen are made uſe there for carriages, and bear the burdens on their backs.

They have two different methods in Sirvan of managing horſes. When the Tartars come there to trade, they let their horſes feed at large in the plains, and theſe horſes continue together like a flock of ſheep, and will never quit each other. The Perſians, on the contrary, take great care of theirs; for they always cover them with a thick cloth, both in ſummer and winter; and if they turn them out to graſs, they tie them, or put a great clog to their feet. When the graſs ſeaſon is over, they only give them towards the evening a ſack of ſtraw cut ſmall, with four or five handfuls of barley, yet theſe horſes, with loads on their backs, will travel, without reſting, twelve or fifteen long leagues in a day; and what is very commodious is, that ten or twelve loads of ſtraw, and half a load of barley, will maintain two hundred horſes two days march.

Beſides domeſtic animals, the foreſts are full of wild boars, ſtags, foxes, and wolves. There is at Chamake a conſiderable trade in foxes ſkins for Aſtracan. Larks and quails are ſcarcer in Sirvan than in Europe; but as a recompence, partridges are very common, as well as buſtards, heathcocks, and pheaſants; and there are likewiſe geeſe, ducks, pigeons and cranes. Storks come there in ſummer to build their neſts, and bring up their young, but ſoon after diſappear.

When the winter becomes ſharp, one may purchaſe four heathcocks for five pence, a buſtard for five or ſix, and a live pheaſant for ten pence; theſe birds thruſting their heads into the ſnow, and ſuffering themſelves to be taken.

A country ſo happy, and which furniſhes ſo liberally every thing which renders life commodious and agreeable, is inhabited by a poor miſerable people, either becauſe their natural lazineſs hinders them from profiting by the ſtores which nature offers them, or becauſe they are impoveriſhed by the exceſſive taxes laid upon them; for it is ſaid that the king of Perſia annually draws out of Sirvan two millions of abaſſis; the common food of the inhabitants is garden herbs and fruits. Their moſt delicate repaſts conſiſt of rice, ſour curds and cheeſe. Their cloathing is coarſe ſtuff like a caſſock, under which they wear a looſe ſhirt, and few of them have another for change, which makes them to be eaten up with vermin; but what is moſt aſtoniſhing is, that they ſuffer ſo patiently their bad company, that they never give themſelves any trouble to be freed of them.

Their ſhoes are made of the ſkin of an ox's head, or the head of a wild boar, and riſing pretty high on the foot, are tied with cords.

They are eſteemed cheats and lyars; and it is ſaid of them, that they are perſuaded without a lye, no buſineſs can ſucceed; but in other reſpects they behave themſelves tolerably.

There are three languages ſpoken in the country; the Turkiſh, which is the moſt common; the corrupt Perſian, and the Armenian; all of which they learn, and ſpeak theſe three languages without confuſion.

In Sirvan the different nations are diſtinguiſhed by the different head-dreſſes. As the Perſians love the red turbant, they call them keſel-baſchi, or red-caps; the Armenians kara-baſchi, black-caps; and the Georgians, who have a very little bonnet, baſchi-achouk, bare heads.

Let

Let us proceed to the deſcription of Chamake, which was formerly no more than a fortreſs ſurrounded with a wall, with turrets here and there, of which there nothing remains now but a few ruins. The city is enlarged on the ſouth-ſide, and extending over five or ſix little hills, is quite open, without walls or ditches, and compoſed of about ſeven thouſand houſes, ſome of which are built of ſtone, with earth inſtead of mortar; but the greateſt part are only of earth and clay, tho' ſome have a raiſed roof, covered with boards, inſtead of ſlate or tile, and others have flat roofs. Theſe are of one ſtory, having the door and windows on the ſame ſide, and ſeveral houſes have only the door to give them light; as theſe flat roofs are only of prepared earth, with a mixture of chopped ſtraw, and laid about a foot thick on little poſts or beams, they cannot ſtop the rains, if they continue any conſiderable time, but the whole houſe is deluged.

People of eaſy fortunes take the precaution of having a tin roof, and that the ſun may not prejudice it, they ſmeer it with naphtha.

There is not in all Chamake any public building worth notice, nor one fine moſque, and yet it is a town of great trade, and the ſtorehouſe of Muſcovy and Perſia. The Muſcovites have a magazine there, and bring to it tin, copper, ſkins, furs, and other merchandizes from their country. The Perſians and Indians there ſell their ſtuffs, ſilks, and cottons, with embroidery in gold and ſilver, and variety of coſtly flowering and ornaments. The Tartars bring hither horſes and ſlaves, and there is a market where ſeveral ſtreets meet together, with ſhops on each ſide ſhaded from the ſun.

As for the religions publicly exerciſed at Chamake they are almoſt of all ſorts; mahometiſm is pre-

predominant, but is divided into two ſects, viz. that of Jonis and Cahis, or Jehais; the one are followers of Omar, and the others of Ali, and they continually curſe and deteſt each other.

The Jews have a ſynagogue, and the Indians a pagod, and theſe laſt, who are in number about two hundred, carry on the greateſt trade, and are the richeſt merchants.

The Chriſtians who inhabit the city are Armenians, and have not above two hundred houſes, and the Muſcovites have a chapel in their magazine. The prieſts of both theſe nations are dreſs'd in green, and have this in common, that they love wine exceſſively.

The governor of the city and all the province, has the title of kan, and the magiſtrate who is intruſted with the police and the adminiſtration of juſtice is called kalenter.

It rarely happens that Sirvan is expos'd to the calamities of war; for tho' it is at the extremity of Perſia, its ſituation ſecures it; for mount Caucaſus is a rampart which enemies cannot break thro'; notwithſtanding which, the king of Perſia, for the ſake of peace from this quarter, gives a penſion of thirty-five thouſand abaſſis to the chamkal; for thus they call the prince of the Leſchi, a Tartar nation who inhabit beyond the mountains in the Dagueſtan, whence they ſay that Leſchus, firſt prince of Poland, came.

In this place, and all over Perſia, they celebrate, during ten days, the memory of Uſſain the ſon of Ali. In the nine firſt days we ſee little beggars, half naked, beſmeer'd with black, and divided into companies, run up and down the city with drums, ſinging and bawling out with all their ſtrength, Uſſain! Uſſain! On the tenth day they carry thro' the ſtreets a child upon a kind

kind of bier, ſupported by twenty men. The bier is ornamented with rich ſtuffs and looking-glaſſes, which make them ſtill more ſplendid. The child counterfeits death, that he may repreſent Uſſain, and during the proceſſion, trumpets, drums, and the ſhouts of the people, make a hideous noiſe. This burleſque ceremony is changed the following day into a battle, which is fought in the great market place of the city, which is above five hundred paces long, and one hundred and fifty broad.

The city is divided into two parties; the one called Leideris, and the other Clahmedautais, from the names of two brothers, formerly princes of Chamake. The combatants are armed with ſticks of half a pike length, with ſlings, and even fire-arms, ſo that the battle never ends without blood-ſhed. The governors endeavour to ſtop this diſorder; but they cannot curb the youth, who glory in ſignalizing themſelves in this ſkirmiſh.

CHAP. XXXIX.

The loadſtone uſed by the Chineſe phyſicians; properties which they attribute to bellevedere; the Chineſe camphire; manner of their extracting it from the tree, and preparing it; the qualities which they attribute to it.

THEY ſucceſsfully uſe the loadſtone in China againſt all ſudden, painful, and malignant tumors, ſince Chineſe phyſicians look upon this remedy as admirable; becauſe, as they judge, it attracts the venom, and deſtroys the evil in its origin. They take ſteel filings, that are made as fine

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as poſſible, and throw them into the ſtrongeſt vinegar; they then mix both well together, and after three or four boilings, take out the ſteel, and ſpread it on the affected part, after which they take a large loadſtone, and apply it often to the filings, which attract the hidden cauſe of the malady, and diſſipate the malignity of the poiſon. How many doubts may be propoſed concerning this remedy? Can the load-ſtone vivify the ſteel filings, as it does the needle? Can the ſteel filings prepared in this boiling liquor be more proper to be agitated by the load-ſtone? Can the acids of the vinegar with which it is impregnated, render it, by a new arrangement of its pores, better prepared for the motion given by the load-ſtone? After all, may it not happen, that the load-ſtone may have ſome virtue againſt the poiſon, which it never exerts, but conjointly with the filings impregnated with the acids of vinegar, which cauſes a particular impreſſion on the affected part.

From the properties of the load-ſtone, let us paſs to thoſe which the Chineſe attribute to the bellevedere. This plant, as the Chineſe botaniſt ſays, grows in the end of March, or the beginning of April; its ſprouts, when they are eight or nine inches high, aſſume the figure of a child's fiſt, when it is half cloſed; it extends afterwards, and puſhes out an infinity of branches, ornamented with leaves like thoſe of flax. Theſe branches gradually become round as they croſs each other, and are naturally diſpoſed in the form of an agreeable pyramid. The ſame author adds, that the leaves of the bellevedere, while they are tender, have a juice of an agreeable taſte; that they may be eaten in ſallad with vinegar, if you mix but ſome ſlices of ginger; that being prepared as other pot-herbs, and boiled with the meat, they give it a fine and deli-

cate taſte; that when it is in all its beauty, its leaves become hard, but that then they find in its ſtalk and root a food that will ſupply the neceſſity of life in years of famine. When the plant, ſay they, is arrived at its natural height, they ſeparate the principal ſtem, and draw from it a lixivium of aſhes, which ſoftens, purifies, and cleanſes it from the ſkin and bark. After this ſteeping they expoſe it to the ſun; and when it is dry, they boil and ſeaſon it. As for the root, whoſe colour inclines to violet, they take off the ſkin in filaments, or ſhreds, which after being boiled, are eatable.

But what they principally ſeek is the white ſubſtance of the root, which they eaſily reduce to meal, of which they only take what remains in a paſte at the bottom of the veſſel, which they afterwards bake in little loaves or rolls. The botaniſt quotes the example of four mountaineers, who living generally on the leaves, ſtems, and roots of bellevedere, which their country furniſhed in plenty, preſerved themſelves in perfect health to extreme old age.

Beſides, this author adviſes, that to render the bellevedere more plentiful and ſubſtantial, they ſhould ſet fire to theſe mountains which are covered with it, ſometimes in one place, and ſometimes in another, becauſe its own aſhes enrich its plants, and give them a more nutritive juice.

He then proceeds to the medicinal virtues of this plant. The bellevedere, ſays he, has no hurtful or malignant quality, is cold by nature, of a ſweet taſte, full of benign juice, frees from exceſſive internal heats, is diuretic, opens the urinary paſſages, and procures ſleep; being toaſted, reduced to a powder, and taken in a draught to about two drachms, it expells flatulencies of the abdomen, and is a wholſome remedy againſt all diſtem-

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pers cauſed by exceſſive heats. In a word, the root of the plant reduced to aſhes, diſſolved in a little oil, and applied to the bite of ſerpents, and other venomous inſects, deadens the poiſon, draws it out, and cures the wound. The Chineſe phyſician has neither recourſe to ſalts, acids, nor alkalies, whether intrinſical to the plant, or chemically extracted from it, but only relates plainly its effects, and leaves to ſkilful chemiſts to ſeek out and unravel the hidden cauſes of them.

If theſe effects be true, ſuch diſcoveries, ſimple as they are, ought to induce our European chemiſts and phyſicians, to make different experiments, to convince themſelves of the properties of this plant, which, perhaps, is only neglected, becauſe we are ignorant of its virtues.

What we are about to relate of camphire, will not appear leſs amazing, or intereſting, than what we have related of the bellevedere. We are perſuaded in Europe, that this precious gum diſtils from the ſtem and branches of the tree, and is collected near the foot of it, where they take it up mixed with earth. The dictionary of arts takes it for a truth, that this gum diſtils from a tree. "They bring, ſays the author, camphire from "China into Europe entirely crude, and in cakes; "but as it has not paſſed the fire, it is reputed "coarſe, and is ſo in reality."

The extract of a Chineſe book lately publiſhed, affords ſuch diſcoveries on this ſubject as deſerve attention; for the book has great authority, and was printed by the order and care of the emperor Changi, who has inſerted in it his own reflections. They cite a great number of learned men, who have been the authors, or reviſers of the work; and aſſure us, that the camphire brought from China, does not drop to the ground, as it happens in

other reſinous trees, which for their own preſervation only diſcharge what is too unctuous in their ſubſtance; and that it does not diſtil from the top of the tree to the bottom, by an inciſion which they made in it. They would uſe this art in China, if they could do it with ſucceſs; for ſuch inciſions made in reſinous trees are much uſed in that country. In the article preceding that which treats of camphire, it is related, that to loſe nothing of the varniſh, they always fix to the place of the tree, where the inciſion is made, a little tube, and to it a veſſel, which prevents the mixture of dirt and foulneſs, and as much as poſſible, the evaporation of the diſtilling juice. In another article, where mention is made of the pine-tree, which furniſhes a reſin, to which they attribute great virtues, they ſpeak of a method of inciſion, which perhaps is unknown in Europe. They dig the earth, ſays the author, round about an old pine-tree, and uncover one of its principal roots, in which they make an inciſion, from whence diſtils a ſpirituous juice; but they muſt take care, that during the operation, the place above the root be covered, that the light of the ſun or moon never reach it; without doubt the deſign of this method is to extract from the pine a liquor which is naturally fluid, and will continue ſo.

But it is in a quite different manner that they extract camphire in China from the tree called tehang; for they take, ſays the Chineſe author, freſh branches from this tree, cut them into ſmall parts, and ſteep them three days and nights in ſoft water. When they have been macerated in this manner, they throw them into a kettle where they are boiled, during which time, they perpetually ſtir them with a ſtick of willow-wood; and when they ſee that the particles of this juice adhere copiouſly to

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the ſtick in form of a hoar-froſt, they ſtrain it off, taking care to throw away the lees, or ſediment. Then this juice is gently pour'd into a new varniſhed earthen veſſel, where they leave it for a night, and on the next day find the juice coagulated, and become a kind of maſs.

In order to purify this firſt production, they uſe a copper baſon, look for ſome old mud wall, of which they take a part, and reduce it to a very fine powder. They put this powder at the bottom of the baſon, and upon this bed of earth they ſpread another of camphire, and thus diſpoſe them alternately to the number four; and on the laſt, which is finely pulverized, they make a covering of the leaves of the plant called poho, or penny-royal. The copper baſon being thus filled, is covered with another baſon, and they take care that both are exactly cloſed; and that they may exactly fit each other, they ſecure them at the edges with a yellow earth, which unites them ſtrongly together.

The baſon being full of this mixture, they place it on the fire, which muſt be regular, equal, and neither too ſtrong, nor too weak; but practice alone can teach the due proportion. We muſt take care that the earth which joins the baſons, holds both cloſe, and leaves no chink, for fear the ſpirituous parts ſhould eſcape, which would ruin the whole operation. When they have given it a ſufficient heat, they wait till the baſons are cold, and then ſeparating them, they find the camphire ſublimed, and adhering to the cover.

If the operation is repeated two or three times, the camphire will come out in beautiful parcels. Whenever they chuſe to make uſe of it in certain quantities, they put it betwixt two earthen veſſels, the edges of which they bind round with ſeveral folds of wet paper, and keep this veſſel over a moderate

derate and equal fire about an hour; then letting the veſſel cool, the camphire is found in its perfection, and fit for uſe.

An European chemiſt who had freſh branches of the tehang tree, would certainly abridge theſe operations, with ſome advantage with regard to the quantity and purity of this gum. Perhaps alſo all the Chineſe operations have their particular uſe, ſince they know how, in leſs time, and at a ſmaller expence, to ſublime mercury; for inſtance, in two well luted crucibles, ſuch as ſilver-ſmiths uſe in the fuſion of ſilver.

At leaſt, we cannot ſay truly, as is affirmed in the dictionary of arts, that the Chineſe camphire is brought into Europe crude, without having paſſed thro' the fire, ſince we find that it is ſubjected to it ſeveral times, tho' it may happen, that the Chineſe, to increaſe the quantity, and the profit from it, ſell, or have ſold it formerly to the European merchants in crude lumps; that is to ſay, after a ſlight boiling given to their maſs, or mixture of earth and camphire, and the plant pennyroyal. The form of the camphire cakes imported from Holland, which, according to Mr. Lemery, reſemble the cover of a pot, eaſily lays a foundation for ſuch a ſuſpicion.

Beſides, this manner of extracting camphire from the inmoſt part of the tree, may be practiſed in all the ſeaſons of the year; which never could be, was it extracted like other reſins, which flow not but a ſhort time. Beſides, by ſhaking the camphire tree, it is leſs hurt than by extracting its juice by inciſions, which are always prejudicial.

Whatever the camphire is, which is ſold to the Europeans, it is certain, that in the ſhops of Pekin they ſell ſome very cheap, which yet is well granulated,

nulated, ſufficiently pure, very ſubtile, eaſily evaporated, and when incloſed in a double veſſel may be preſerved a long time. But the beſt Chineſe camphire, in the opinion of the Chineſe themſelves, cannot be compared to the good camphire of Borneo.

Might not one procure at Canton a little plant of the camphire tree, and tranſport it to ſome of the French iſlands, where it might eaſily grow; and it may poſſibly happen, that there are ſome of them there, tho' not known.

'Tis ſaid the Chineſe camphire comes from Holland into France; ſo that, perhaps, the Dutch have found it in their own iſlands, or from other parts tranſported the trees, which bear that camphire, which they ſell under the name of Chineſe camphire; but it is more probable that the Chineſe of Batavia buy it in China, and then ſell it to the Dutch.

They had reaſon to ſay, in the dictionary of arts, that the Chineſe camphire is extracted from a very high large tree, ſome of which, ſays the Chineſe author, are found one hundred and three cubits high, and ſo thick, that twenty perſons with extended arms, can hardly graſp them. There are ſome ſeen that are computed to be three hundred years old; and this wood, which is of ſervice for the conſtruction of houſes and ſhips, is intermixed with beautiful veins, and ſeveral fine works are made of it.

This tree grows faſt, and about its foot and larger roots, ſhoots forth ſuckers that are proper for tranſplantation. The old trunks emit ſparks of fire, probably, becauſe this wood, which is rotten, and full of worms, produces thoſe falſe fires, which are the natural effects of the effuſion of camphorated

phorated ſpirits, which are inflammable by the leaſt motion, when continued but a few moments. The flame is ſo ſubtile, and there is ſo little fear of its communicating itſelf, that the ſofteſt hairs are not ſet on fire by it, as is proved by the experiment of burning camphire in the ſpirits of wine in the cloſeſt places.

It now remains that we ſhould ſpeak of the virtues which the Chineſe aſcribe to camphire. Tho', ſays the ſame author, it is ſomewhat acrid and hot, yet it is ſo far from being hurtful and deſtructive, that it opens the ſeveral veſſels of the body, ſerves to diſſolve and carry off the phlegm of the inteſtines, diſſipates the impurities of the blood, removes the inconveniencies ariſing from cold and humidity, appeaſes violent cholics, the colera morbus, and the pains of the heart and ſtomach. It cures tetters, the itch, and troubleſome cutaneous diſorders, and is ſucceſsfully uſed in faſtening looſe teeth, and is ſo efficacious a remedy againſt worms, that it delivers thoſe who are ſubject to them, and prevents that diſorder in others.

All the low part of the tree impregnated with the ſubſtance of the camphire, has almoſt all its qualities, in a much inferior degree. This wood is of a moderately ſharp taſte, and may be uſed internally without any apprehenſion of its diſordering the ſtomach or abdomen; and if there is any violent indiſpoſition in theſe, it dries up the humours which cauſe it, or if there be a neceſſity of throwing them up at the mouth, this effect is produced without any violent efforts, by ſwallowing a pretty rich decoction of the powder of this wood, which alſo reſolves indigeſtions after meals. Thoſe who are troubled with acid eructations, ought to uſe a decoction of this wood in a rice-wine, which

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is weaker than ſmall-beer. Fomentations of this wood remove obſtinate troubleſome ſweatings of the feet.

Let us finiſh theſe obſervations with a very efficacious remedy uſed againſt a diſtemper of the eyes, which is very extraordinary, and far more common in China than in Europe, and which is called nyctalopia. This malady is ſuch an affection of the eyes as cauſes perſons to ſee well in the day, imperfectly in the evening, but nothing at all during the night. The acceſſions of this periodical diſtemper, which is thought incurable in Europe, come on at the approach of night. Kimungyen is the name which the Chineſe give to this diſtemper, and the three letters which compoſe, in the Chineſe language, this word, ſignify eyes ſubject to be darkened, like thoſe of fowls. The Chineſe imagine, that by comparing the diſordered eyes of the patient to thoſe of a fowl, which are darkened towards the evening, they have diſcloſed the myſtery of this diſorder, without reflecting, that this effect in fowls is as natural as the falling of the eye-lids in a perſon oppreſſed with ſleep.

But the caſe is not the ſame in the nyctalopia, ſince the patient, tho' his eyes are open, ſees nothing, but gropes about even in the places to which he is moſt accuſtomed, and perceives neither inflammation, heat, nor the leaſt twitchings in his eyes: and if he be placed in the day-time in a dark place, with the leaſt light he ſees diſtinctly; but when the night comes on his diſorder ſeizes him to ſuch a degree, that if a taper be preſented to him, he perceives no object enlightened in the room, not even the taper itſelf; and inſtead of a clear light, he perceives nothing but a large blackiſh globe,

globe, without any luſtre. This imperfect ſenſation ſeems to indicate, that the membrane of the retina, become flaccid and obſtructed, cannot, for want of its natural ſpring, feel the gentle impreſſions of the viſual rays, and is only agitated by ſuch as are very ſtrong. If the eye is darkened gradually as the night approaches, it is not enlightened in the ſame manner, nor ſucceſſively, which is a comfort to the patient; for he knows that the following day his ſight will be good till ſun-ſet. The following is the remedy which the Chineſe phyſicians uſe againſt this diſorder.

Take the liver of a ſheep that has a black head, cut it with a knife made of bamboo, or hard wood; take out the nerves, pellicules, and filaments; then cover it with a leaf of water-lily, after having powdered it with a little good ſalt-petre. Then put all into a pot, and let it be ſlowly boiled; ſtir it often while it boils, having on your head a large linen covering, which hangs down to the ground, that the ſmoak which exhales from the liver in boiling may not be diſſipated, and that you may receive the whole. This ſalutary ſteam riſing up to your eyes, which muſt be kept open, will make the morbific humour diſtil from them, and you will be cured. If you ſhould uſe this remedy about noon you will find yourſelf in the evening perfectly relieved from this ſymptom; but ſome, to render the remedy more efficacious, adviſe the patient to eat a part of the liver thus prepared, and drink the broth of it; but others affirm, that this is not neceſſary; and that perſons have been cured by fumigating themſelves at leiſure with the ſmoak of the ſheep's liver while it was boiling; and that it was equally uſeleſs to regard the colour of the ſheep, whether black or white.

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This is an eaſy, ſpeedy, and efficacious remedy, whoſe virtue has been experienced by a great number of Chineſe for a malady known in Europe, looked upon as incurable; and ſhould this remedy ſucceed in Europe, China muſt be judged to have made it a beneficial preſent.

CHAP. XL.

The Indians opinions about the tranſmigration of ſouls.

MOST of the Indians believe the ſoul to be immortal, and ſome think that it is a particle of God himſelf; but tho' the generality of them are perſuaded of this immortality; yet they only prove it by the metempſychoſis or tranſmigration of ſouls into different bodies.

Not only the Indians beyond the Ganges, but the people of Aracan, Pegu, Siam, Camboya, Tonquin, Cochinchina, China, and Japan, are of the ſame opinion, and ſupport it by the ſame reaſonings as the other Indians do.

We even find in America ſome ſlight traces of the tranſmigration of ſouls; but how can we account for the introduction of this ſenſeleſs notion among a people, who were ſo long unknown to the reſt of the world? It is not equally ſurpriſing, that it ſhould ſpread in Africa and Europe. The Egyptians may have taught it to the Africans, and Pythagoras, the head of the Italian ſect, had eſtabliſhed it in ſeveral nations, but particularly in the two Gauls, where the druids looked upon it as the baſis and foundation of their religion; and it even

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entered their policy, ſince when their generals deſigned to inſpire into their armies a contempt of death, they aſſured them that their ſouls would no ſooner leave one body, than they would immediately enter another to actuate it.

This doctrine was taught in the infancy of Chriſtianity by the Simonian heretics, and the Baſilidians, the Valentinians, the Marcionites, the Gnoſtics, Manichæans, and even many Jews embraced this extravagant ſyſtem; ſo that we read in the talmud, that the ſoul of Abel paſſed into the body of Seth, and afterwards into that of Moſes.

Some imagine, that this doctrine was originally taught by the ancient Egyptians, and that from them it ſpread itſelf to the Indies, and over the reſt of Aſia. Others, on the contrary, aſcribe the invention of it to the Indians, who afterwards communicated it to the Egyptians. Philoſtratus aſſures us, that Pythagoras was the inventor of this ſyſtem; that he communicated it to the bramins, in a voyage which he made to the Indies; and that from thence it was imported into Egypt. According to the Indian chronology, ſeveral thouſands of years are elapſed ſince this doctrine was in vogue there, but unluckily the chronology of theſe nations is filled with ſuch incoherences, that no credit can be given to them; ſo that it is more probable, as ſeveral ancient authors have ſaid in expreſs terms, that it was from the Egyptians, rather than the Indians, that Pythagoras and Plato drew what they have written about the metempſychoſis.

The Indians, as well as the Pythagoreans, underſtand by the metempſychoſis, the paſſage of a ſoul through ſeveral different bodies, which it ſucceſſively animates, to produce thoſe operations which are proper to it. At firſt they only ſpoke

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of the paſſage of ſouls into different human bodies, but afterwards enlarged their ſyſtem, and the Indians have ſtill improved upon the diſciples of Pythagoras and Plato.

1ſt, The Pythagoreans in eſtabliſhing their ſyſtem, founded their principal proof on the authority of their maſter, whoſe words were to them ſuch oracles, that it was not permitted them to entertain the leaſt doubt about any thing that was advanced by this great philoſopher. Our maſter has ſaid it, would the Pythagoreans reply, in diſpute; and this anſwer ſupplied the place of all proofs.

This is juſt the anſwer of the Indians. Bruma, ſay they, is the chief of the three gods worſhipped in the Indies; it was he who taught this celeſtial doctrine; it is therefore infallible. It is Bruma, who is Abaden; that is, who ſpeaks eſſentially conformable to truth, and all whoſe words are oracles. He has, add they, a perfect knowledge of what is paſt, preſent, and to come; it is he who writes all the circumſtances of the life of each man; it is he who has taught all ſciences; and can we, after this, doubt of the reality of the metempſychoſis, ſince it has been revealed by Bruma?

2dly, The diſciples of Pythagoras were to keep ſilence for a certain number of years, before they were allowed to propoſe their doubts; after which they were permitted to make their objections. Some of his diſciples having aſked of him, if he remembered to have exiſted before, he anſwered them, that he had appeared in the world under the name of Etalides the ſon of Mercury; and that afterwards he was born again in the perſon of Euphorbus, and finally killed at the ſiege of Troy by Menelaus; that afterwards he was known by the name

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of Hermotimus; that he afterwards was a fisherman in the island of Delos, and went by the name of Pyrrhus, but at that time was the individual Pythagoras.

The Indians, on their side, quote an infinity of changes in their gods, beginning with Bruma, who, they say, has appeared under a thousand different figures; and the metamorphoses of Vichnou are almost as numerous. There is one which they are still in expectation of, which they call Kelki-vadaran; that is to say, Vichnou turned to a horse; and they mention many other changes, especially of Routren.

The worshippers of Vichnou pretend, that this god, by an heavenly light, inlightens some favourite souls of his votaries, and informs them of the different changes which have happened to them in the bodies which they have animated; and the zealous worshippers of Routren affirm, that this god has revealed to several among them the several stages of being in which they were, in the various transmigrations of their souls.

3dly, The Indians and Pythagoreans have recourse to comparisons, that they may the more clearly explain their sentiments. The soul, say the Indians, is like a bird in a cage, and as a man in a house which he inhabits, takes care to repair the weakest parts, just so the soul of man is in the body, lodges in it, and endeavours to preserve it. Besides, as a man leaves his house when it is no longer habitable, and goes to another, so the soul leaves the body when some sickness or accident renders it incapable of being animated, and takes possession of another body. In a word, as a man goes out of his house when he pleases, and returns in the same manner, so there are great men, whose

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ſouls have the privilege to ſeparate from their bodies, and return again when they pleaſe, after having run thro' ſeveral parts of the univerſe.

We read in the life of Vieramarken, one of the moſt powerful kings of the Indies, that a prince begged of a goddeſs in a private temple, to teach him the mandiram; that is, a prayer which has the virtue of ſeparating the ſoul from the body, and making it return when it would; he obtained this favour; but by ill-luck the domeſtic who accompanied him, and ſtood at the door of the temple, over-heard the mandiram, learned it by heart, and reſolved to uſe it at a favourable conjuncture.

As this prince entirely confided in his domeſtic, he communicated to him the favour he had received; but took care, as he thought, that he ſhould not know the mandiram. It happened that this prince often hid himſelf in a remote place, where he gave a looſe to his ſoul; but in the mean time he ordered his ſervant to watch carefully his body, till his ſoul was returned again. He then repeated to himſelf this myſtical prayer, and his ſoul diſengaging itſelf inſtantly from his body, flutter'd here and there, and afterwards returned. One day when the domeſtic ſtood centinel near his maſter's body, he took it into his head to repeat the ſame prayer, and his ſoul immediately ſeparating from his body, entered into that of the prince. The firſt thing that this falſe prince did was to cut off the head of his firſt body, that his maſter might not re-animate it. Thus the prince's ſoul was reduced to the neceſſity of animating the body of a parrot, with which it returned to the palace.

We muſt not think it ſtrange, that the Indians believe, that the great men among them have had the power of thus ſeparating their ſouls from their bodies,

bodies, ſince Pliny relates in his natural hiſtory, that one Hermotimus had this wonderful ſecret, of quitting his body as often as he pleaſed; that his ſoul thus ſeparated, travelled into ſeveral countries, and returned to its body, that it might relate what paſſed in the remoteſt nations. Indeed Plutarch is not of Pliny's ſentiments, but imagines that the ſoul of this Hermotimus was not really ſeparated from his body, but that a genius was continually at his ſide to inform him of what paſſed elſewhere.

The third compariſon which the Indians make is taken from a ſhip and pilot. The pilot, ſay they, is the governor of the ſhip, directs it as he pleaſes, conducts it into diſtant climates, ſurrounds iſlands, enters with it into rivers, and ſails in it to all the ſea ports in the world. If it be hurt in any part, he refits it, and abandons it intirely when the planks beginning to rot, denounce an approaching ſhipwreck. It is thus that the ſoul acts in the body of man. It conducts it every where, is the cauſe of its voyages, leads it into towns, makes it aſcend and deſcend, walk, or reſt; when it is ſick, ſearches for remedies to cure it; and never leaves it but when it is in ſuch bad repair that it can no longer perform its functions.

4thly, In the books of the ancient Indians we find, that the ſouls are portions of the ſubſtance of God himſelf; that this ſovereign maſter diffuſes himſelf thro' all the parts of the univerſe to animate them; and it muſt be ſo, add they, becauſe God alone can vivify and produce new beings. Imagine to yourſelf, ſay ſome of their bramins, ſeveral millions of veſſels, ſome great, ſome ſmall, ſome of a middle ſize, filled with water: imagine likewiſe that the ſun ſhines perpendicularly upon them,

them, is it true that he impreſſes his image in each of them; that a ſmall ſun is ſeen in each, or rather a collection of rays, which flow from the body of that reſplendent ſtar. This happens in our world; the veſſels are thoſe different bodies, whoſe ſouls are emanations from God, as the rays in the veſſels are from the ſun. If they are aſked, Whether they think, that in the diſſolution of bodies, theſe ſouls ceaſe to be, as the images of the ſun ſubſiſt not in theſe veſſels after they are broken, they anſwer, that as thoſe rays which formed the images in the broken veſſels, ſerved to form other images in other veſſels, ſo ſouls, when they are obliged to quit decaying bodies, animate again ſome others, that are more freſh and vigorous.

Others believe that God is an extremely ſubtile air; that our ſouls are parts of the divine breath; that when we die, this ſubtile breath which animated us, reunites itſelf to God, unleſs it ſtands in need of purification by ſeveral tranſmigrations, or metempſychoſes; that when theſe ſouls are thoroughly purged from all impurities, they obtain final happineſs, which has five degrees, and is conſummated by an identicity with God.

This doctrine was taught by the diſciples of Pythagoras, as well as Plato, and the followers of Origen, who had taken it from theſe two philoſophers, as is evident from what Cicero puts into the mouth of Plato; to wit, that the Italic philoſophers did not doubt but the ſouls of men were derived from the ſubſtance of God himſelf.

It is true, however, that ſeveral paſſages in Plato, ſufficiently prove that God created human ſouls, and afterwards united them with the ſtars, that they might there contemplate the ideas of all created beings; and in this, Plato, the faithful ſcholar of Pythagoras, thought as his maſter.

The ſame doctrine is found in the writings of the Indians, eſpecially in regard of the rajas, who conſtitute the chief claſs after that of the bramins. There are many claſſes of the rajas ſubordinate to each other, which yet are confined to two principal ones. The firſt is that of thoſe who are come from the ſun; that is to ſay, their ſouls formerly inhabited the body of the ſun, or according to others, were luminous parts of it. The ſame almoſt may be ſaid of the ſecond claſs of the rajas, who ſay they are come from the moon; and when they are aſked, whence proceed the ſouls of the other claſſes, they anſwer that they come from the ſtars, a deciſive proof of which, ſay they, is drawn from theſe ſtreams of light, which appear in the night-time, when the air is inflamed; for they pretend that theſe are ſouls falling from the ſtars, or from Chorkam. The Indians believe that theſe ſouls which thus fall from heaven, happening to light on the graſs, enter into the bodies of cows or ſheep, which happen to be feeding, and then animate calves or lambs, and if this light ſhould fall upon ſome fruit, which ſhould be eaten by a pregnant woman, they ſay it is a ſoul going to animate the infant in its mother's belly.

In a word, the Indians, as well as the Platonics, affirm, that thoſe ſouls, being diſguſted with their former joys, and ſtimulated with the deſire of animating material bodies, enter into them, and continue till they have ſufficiently purified themſelves, and deſerve to return to the happy regions from whence they came; but that if they therecontract new impurities, they are at laſt condemned to hell, from whence there is no return till almoſt an infinite ſeries of ages has elapſed.

5thly, As for the reſt, this paſſage of ſouls into bodies more or leſs perfect, as they have practiſed

virtue.

virtue or vice, is not done by chance, but ſtrict order; and there are different degrees by which they mount, or deſcend, to their recompence or reward. This is what Plato, a faithful diſciple of Pythagoras, explains in this manner: 1ſt, Should it be a ſoul which has had a great deal of perfection while it was united with God, and had diſcovered many truths while in this ſpecies of beatific viſion, it enters into the body of a philoſopher or a ſage, whoſe higheſt pleaſure is contemplation. 2dly, It animates that of a king or a great prince. 3dly, It paſſes into the body of a magiſtrate, or becomes the head of a great family. 4thly, It animates that of ſome phyſician. 5thly, It enters into the body of a man, whoſe buſineſs it is to take care of the worſhip due to the gods. 6thly, It paſſes into the body of a poet. 7thly, Into that of a logician. And finally, Into that of a tyrant.

According to the Indians, thoſe ſouls which immediately deſcend from heaven, 1ſt, Enter into the bodies of their bramins, who are their wiſe men or philoſophers. 2dly, Into thoſe of kings or princes. 3dly, Into thoſe of magiſtrates or intendants; and finally, into thoſe of the loweſt and meaneſt claſſes, from whence they may, nevertheleſs, aſcend in proportion to their purification. On certain occaſions, ſouls muſt paſs, ſay they, a thouſand times into different bodies, before they are reunited to the ſun, where they become ſo many rays.

The Chaldeans pretend that ſouls have wings, which grow ſtronger, in proportion to their practice of virtue, and weaker as they immerſe themſelves into impurity and vice.

Plato alſo ſays, that when ſouls are not elevated to a higher degree when they change their abode, it

is becauſe their wings are not ſtrong enough. When the Platonics are aſked, how long a time is required for ſouls to recover the vigour of their wings, impaired by vice, they ſay, that at leaſt ten thouſand years are neceſſary for great ſinners; but that for the good, who have lived in three ſtates of innocence, it is enough that they undergo three thouſand years.

The Indians attribute wings, even to the mountains; which, ſay they, were formerly ſo inſolent as to endeavour to cover and overwhelm cities. Devendiren purſued them, ſay they, with a ſword of diamonds, and coming up with the body of the whole army of theſe mountains in their flight, cut off their wings, which has produced that chain of mountains, which divide the Indies into two parts. As for the other mountains ſeparated from the main body, they fell here and there in the parts where we now ſee them, while thoſe which fell in the ſea, formed the iſlands obſervable in it. All theſe mountains, in their opinions, are animated; and they ſuppoſe their children to be rocks, and even gods and goddeſſes.

6thly, According to Plato, ſouls, except thoſe of ſome philoſophers, are judged immediately after their ſeparation from the body, to be either puniſhed in hell, or rewarded in heaven; but that, after a thouſand years, they return to the earth, where they chuſe a kind of life conformable to their inclinations, on which occaſion it happens, that thoſe which have animated human bodies in the preceding life, paſs into thoſe of beaſts; while the others, who have been in thoſe beaſts, at length animate human bodies.

But we are not to believe, that the choice, which theſe ſouls make, is fortuitous or indifferent with reſpect

reſpect to all kinds of beaſts, ſince among all animals they make choice of ſuch as have the greateſt analogy with the conditions in which they were in a pre-exiſtent ſtate. Thus Orpheus choſe the body of a ſwan, and the ſoul of Tamiris was lodged in a nightingale; that of Ajax in a lion; that of Agamemnon in an eagle; and that of Therſites in an ape.

The Indians are of Plato's opinion, with this difference, that they believe that ſouls enter into different bodies, by a fatality, which they call the chankcharam, or determination of Bruma, who takes care to write down all the adventures of this ſoul in the ſutures of that body which it is about to animate.

7thly, According to Plato and Pythagoras, ſouls alſo paſs into trees, plants, and vegetables of every kind. This is alſo the doctrine of the Indians, as is obvious from the following fable told by them:

Chourpanaguey was ſiſter to the giant Ravanen; ſhe had a ſon whom ſhe moſt tenderly loved: this youth, one day, went into the garden of a devotee, and happened to ſpoil ſome trees; the recluſe was offended at it, and immediately transformed him into a tree called almaram. Chourpanaguey having begged the hermit to moderate his paſſion, he yielded, and conſented, that when Vichnou tranſformed into Ramen, ſhould come into the world, and cut a branch off this tree, the ſoul of the young man ſhould fly up into the Chorkam, and never undergo any other tranſmigrations.

8thly, The diſciples of Plato and Pythagoras never thought that ſouls paſs into ſtones, and ſuch-like inanimate ſubſtances.

The Indians are perſuaded that ſouls actually animate ſtones, mountains, and rocks, of which the

lowing is an example. They relate, that there was near the Ganges, a devotee called Cavoudamon, whoſe life was extremely rigorous; that he had one of the moſt beautiful women in the world for his wife; that ſhe had the misfortune to diſpleaſe Devendiren, the ſupreme king of the deities of the Chorkam; that the hermit perceiving this, gnaſhed his teeth for anger, and immediately curſed them both; that his wife was forthwith transformed into a rock, where her ſoul was confined; but in length of time, that Ramen touching with his foot this rock, delivered by his power this unfortunate ſoul; and as ſhe had expiated her crime by this tranſmigration, ſhe took her flight immediately into Chorkam.

9thly, It will be aſked, perhaps, if this paſſage of ſouls from body to body is inſtantaneous, or if there is an interval between the different animations? The Indians are divided in their opinions on this ſubject, ſince ſome think that ſouls continue near their bodies, and even in thoſe places which contain the aſhes of burnt carcaſſes, till they find others proper to receive them, while others think that human ſouls have the indulgence of coming and eating for ſeveral days of what is offered to them; and this is the moſt common opinion, ſo that they rejoice when they ſee ravens come and ſnatch away what they prepare for theſe ſouls. The common people, eſpecially, are perſuaded that the ſouls of the dead enter, for ſome days, into theſe ravens or crows, or at leaſt return in bodies of the ſame figure, that after this they go into the Chorkam, if they have deſerved it, or into hell, if their crimes deſerve that puniſhment.

As for Plato, he aſſures us, that ſuch ſouls as are thoroughly purified, return to heaven from whence

whence they firſt came; and that the ſouls of bad men are obliged to remain near the aſhes or tombs of the dead, till they are permitted to enter into other bodies, and by that means expiate their crimes.

The ancient poets, who, for the moſt part, were Pythagoreans, believed, that ſouls, whether good or bad, accompanied, for ſome time, the carcaſſes. The commentator Servius, explaining theſe words of the third Æneid, Animamque ſepulchro condimus, ſays, that the ſoul continues near the body, or aſhes, as long as there are any viſible remains. It was to hinder ſouls from going ſooner into other places, that the Egyptians embalmed with ſo much care their dead relations. Myrrh, perfumes, and bandages of fine linen dipped in gum, made theſe carcaſſes as hard as if they had been compoſed of marble; for which reaſon they alſo built thoſe ſtupendous pyramids, of which we read ſuch ſurpriſing accounts.

The Indians allow not to human ſouls ſuch a long continuance near their carcaſſes, ſince twelve or fifteen days with them are ſufficient. After which a natural propenſity inclines theſe ſouls to look out for other bodies, which may give them more pleaſure than thoſe which they firſt animated; and this continues till they have paſſed thorough ſeveral hundreds of tranſmigrations.

The cauſe of ſo many new births or regenerations is accounted for by the bramins in the following manner, who all agree, that Bruma writes on the heads of children, at their birth, the hiſtory of their future life; and that, afterwards, neither he, nor all the gods together, can efface it, or prevent its effects. But ſome pretend, that Bruma writes what he thinks proper; and by conſequence, that

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it depends on his fancy whether a man ſhould be happy or miſerable, while others maintain, that he is not free to follow his own caprice; and that what he writes on the heads of children muſt be conformable to their actions in a ſtate of pre-exiſtence.

This writing of Bruma is a thing ſo diverting that it deſerves to be explained. The cranium has ſutures which enter into each other, and are formed almoſt like the teeth of a ſaw. All theſe teeth, according to the Indians, are ſo many hieroglyphics, which form the myſtic writing of Bruma in the three principal ſutures. It is a loſs, ſay they, that we cannot read theſe characters, nor comprehend their meaning, ſince by this we ſhould know all the occurrences of a man's life.

This is the true ſyſtem of the ancient bramins, who affirm, that every good action ought to be eſſentially recompenced, and every bad one neceſſarily puniſhed, in conſequence of which no innocent perſon can be puniſhed, nor any vicious one rewarded. Virtue and vice are therefore the genuine cauſes of the diverſity of conditions. This is the decree which none can reſiſt, this is the fatal hand of Bruma; and it is by explaining this principle, that they give a reaſon why ſome are happy, and others miſerable in this world. If you have done good in a preceding life, then you will enjoy all manner of pleaſures in this: but if you have committed crimes, you will be puniſhed for them.

They call this fatality chankaram, which is a quality imprinted in the will, and precipitates us to do good or evil, according to the actions of a preceding life.

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When this principle is eſtabliſhed, the bramins reaſon from it in the following manner. The God whom we adore is juſt, and therefore can commit no injuſtice; yet many we ſee are born lame, blind, ugly, poor, and unprovided of all the neceſſaries of life, who by conſequence are very unhappy. They have not deſerved ſo melancholy a ſituation at their birth, ſince they had not the uſe of liberty; their fate muſt then be aſcribed to the ſins which they have committed formerly, in a preceding exiſtence. On the contrary, we ſee others born to kingdoms, reſpected, honoured, and ſupplied with every thing that can contribute to pleaſure. By what action could they have deſerved ſo agreeable a condition, if not by the virtues they practiſed in their pre-exiſtent ſtate? Thus all the various tranſmigrations derive their origin from the neceſſity of puniſhing vice, and rewarding virtue.

They are ſo effectually convinced, that all the events of this life depend on the good or evil people have done in another, that when they ſee a man raiſed to high dignity or riches, they doubt not, but that he has been an exact obſerver of virtue in another life; when another, on the contrary, leads a moſt miſerable life, in poverty, and all the diſgraces attendant on it, we need not be aſtoniſhed at it, ſay they, he was a wicked man.

It was Plato who invented the river of oblivion, and affirmed, that the demon who preſided over the return of ſouls to earth made them take a draught of it, ſo that they forget every thing that had happened to them in their preceding exiſtences. He added, however, that the forgetting of what paſſed in another life, was not always ſo univerſal, or profound, but that ſome few traces remained

ed of it, which being excited by objects, or the application to ſtudy, recalled the remembrance of a preceding exiſtence. It is thus that he explains the manner in which the ſciences are learned, and according to this principle he affirmed, that the ſciences were rather reminiſcences of what we had formerly known, than new acquiſitions of knowledge. There were beſides this certain privileged ſouls, who remembered the different bodies which they had animated, and all they had done in them. Thus Pythagoras perfectly remembered that he had been Euphorbus. But this was a ſingular favour, which was only granted to a ſmall number of excellent and divine men.

The Indians advance ſomething like this; for they affirm, that there are certain ſpiritual lights, which are communicated to ſome favoured ſouls, which make them remember all that they have ever ſeen or done. This privilege is particularly granted thoſe who know certain myſtic prayers, and repeat them: but the misfortune is, few know theſe prayers; and hence comes this ignorance of what we have formerly been or known. An example will better ſhew their opinion on this head.

It is ſaid, in a book which they call Brummapuranam, that a king called Bimarichen, born in the kingdom of Tiradidejam, had married one Commatondi, who was a great princeſs, born in the kingdom of Hirreinehia-dejam. This king was very vicious, and did not obſerve the ajarams, or cuſtoms of his nation, which made him odious and contemptible to his ſubjects. The queen grieved to ſee him neglect the very things in which the Parias are very exact, reproached him ſeverely; but the prince was ſo far from being offend-

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ed, that after having heard her patiently, he diſcloſed to her a great ſecret. The devotion I pay the gods, has obtained for me a favour which is reſerved for few amongſt mankind; for they have diſcovered to me by a ſpiritual light which they have given me, that I was a dog in my former exiſtence. I then entered by chance into a temple where they were performing a ſacrifice; and leaping upon the altar, ſwallowed up the rice which they were offering. They drove me out three times; but I as often returning, they gave me ſuch a confounded blow that I died upon the ſpot, before the door of the temple dedicated to Chiven. Luckily for me Chiven had deſcended into the temple to ſee the ſacrifice, and regale himſelf with the ſteam. He was touched to ſee me die before him, and procured me a new birth in the perſon of that king whom I now am. If then, you ſee that I am ſo negligent of the ajarams, it is becauſe my former inclinations are not quite deſtroyed, but I am ſtill hurried on by my former propenſities. This ſtory greatly ſurprized the princeſs; and her natural curioſity prompted her to aſk of her huſband, with no little importunity, what ſhe herſelf had been before. The king looking over old records, with the aſſiſtance of his ſpiritual light, told her, ſhe had been purſued by a bird of prey, and devoured at the ſame time he was killed at the door of the temple; and that this merciful God ordered ſhe ſhould be born again a rajatti. But what will become of us at laſt? replied the queen. The king looking once more into futurity, diſcovered that he and ſhe muſt live ſucceſſively three ſtages of life in the claſs of the rajas.

The End of VOL. I.

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